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The Buzzards Bay Project
NEWSLETTER

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COLLECTION
APR 1 3 1990

Management Plan Drafted for Buzzards Bay

by Carol Kilbride, EPA Program Manager

The Buzzards Bay Project marks an important turning point in 1990 - it will be the first estuary program in the country to complete its Comprehensive Conservation and Management Plan. All twelve estuaries in EPA's National Estuary Program are required to produce such a plan which represents a blueprint for restoring and protecting the estuary.

The management plan for Buzzards Bay defines the most important problems threatening the health of the Bay and its resources, while also establishing goals, objectives and timelines for solutions. The plan contains recommendations to local, state and federal agencies for controlling pollution, regulating land uses within the watershed, and managing resources within the Bay. The plan is directed at solving the three priority problems identified by the Project. These problems include: 1) closure of shellfish beds due to pathogen contamination; 2) nutrient enrichment leading to problems such as algal blooms and fish kills; and, 3) contamination of finfish, shellfish and lobsters with toxic chemicals.

Over the past five years, the Buzzards Bay Project has come to realize that many of the problems in the Bay are localized. Buzzards Bay is bordered by many small embayments, each with its own set of physical conditions and surrounding environments. Although the open waters of the bay are generally in good condition, many embayments are suffering deleterious effects from human activities. According to the state Program Manager, Dr. Joseph Costa, "the Buzzards Bay management plan focuses to a great degree on individual embayments."

Another major theme contained in the management plan is for local implementation with a watershed perspective. The ground water and surface drainage basin that impacts the water quality of Buzzards Bay includes all or portions of 17 municipalities. Local boards and commissions are responsible for zoning, subdivision control, health regulations, and wetlands protection. As such, they have considerable powers to regulate and protect the coastal environment. Rather than create new regulatory mandates, the management plan strives to enhance existing authority at the local level and foster intermunicipal cooperation.

The core of the management plan consists of a number of "action plans" that address issues affecting water quality and living resources in Buzzards Bay. Key action plans include: protecting shellfish, managing nitrogen-sensitive embayments, remediating stormwater, enhancing local environmental management, controlling boat wastes, and improving wetlands protection.

Each action plan contains one or more goals and identifies management objectives to achieve the goals. Additionally, the action plan will include specific actions that should be implemented, a strategy for financing, and also one for monitoring the effectiveness of management actions. Action plans also identify the lead organization to oversee the recommended actions, what government agencies or groups must be involved and how they should interact.

In most cases the lead organization for implementation will be the local community. Broad understanding and support of the management plan both from local officials and the general public is crucial to the Project's success. To foster this understanding and support, the Buzzards Bay management plan was developed with the guidance and advice of local, state, regional, and federal officials; the general public; and the scientific community. Numerous meetings and workshops have been held over the past year that provided valuable input

continued on page16

IN THIS ISSUE:

Issues Worskhops Overview....................4
PCBs in New Bedford Harbor...................6
Update on The Coalition............................7
Calendar...8
Around The Bay.......................................10
TAC Winter Update.................................15
Directory...17

Water, Water Everywhere... Easy Tips to Keep it Drinkable

by Frances Brewster, Newsletter Staff

With seemingly endless rain this Fall, a steady stream of water out of the tap, and miles of clear blue seas, it is hard to believe that there is a problem with our water supply. Over 80% of the earth is covered with water, however, only 1% of that water is drinkable, and that percentage is rapidly shrinking due to contamination and depletion. It's time to take a closer look at our water situation, and explore some easy options to keep it flowing clean and strong.

It has been estimated that 1.5 million gallons of water are used every year to feed just one person in the United States. That is enough water to cover a football field four feet deep. Yet, researchers at Cornell University have found that more than 60% of rural wells contain unsafe levels of one or more poisons. According to several health professionals, bad water is the primary source of disease in the United States today. (Coffel, 1989).

Groundwater can be polluted from any number of sources including: the 23 million septic systems; the 9,000 municipal landfills; the 190,000 surface impoundments; the 280 million acres of cropland treated with pesticides every year; the 50 million tons of fertilizer applied to lawns and crops every year; and, the 10 million tons of dry salt and 2 million gallons of liquid salt applied to highways every winter. (Coffel, 1989). The U.S. EPA estimates that only 10% of the 80 million tons of toxic wastes generated every year are disposed of properly. That leaves 90%, or 10 tons of waste per square mile, were it to be evenly distributed, that can potentially contaminate the water supply. (Coffel, 1989). Industry, while contributors of concentrated toxics, are not the only culprit. Every household accumulates an average of 50-100 pounds of hazardous waste every year, of which only a small percent is disposed of in registered disposal facilities. (Duxbury, 1989). In addition, an estimated 3 million gallons of gas leak from underground fuel tanks in the U.S. annually. One gallon of gasoline per day leaking into an aquifer can contaminate the water supply of a city of 50,000 people. (Coffel, 1989). In Massachusetts, over 75,000 gallons of motor oil are dumped into the sewers every year. It only takes one gallon of motor oil to contaminate one million gallons of drinking water. (Ehrlich, 1989).

The days of out-of-sight, out-of-mind are over. What goes down the sink is coming back to haunt us in our drinking, swimming and recreation water. The U.S. EPA has identified over 700 toxic compounds in water samples taken across the United States. (Coffel, 1989). An estimated 70 million Americans drink water with lead concentrations over the recommended 20 ppb limit set by the EPA. (Coffel, 1989). Between 5% and 10% of all U.S. wells examined have nitrate levels higher than the recommended 45 milligrams per liter. (la Riviere, 1989). In Buzzards Bay, 16,551 acres of shellfish beds were closed in November, 1989. Every individual can help, maybe not to clean up already contaminated areas, but at least to stop the list from growing even longer. Here are some quick and easy steps everyone can take to safeguard our water supply.

To reduce toxics in you Household:
The best way to reduce the amount of toxics in our groundwater is to reduce the amount of toxics being used. There are a number of non-toxic alternatives to chemical household cleaners. Some of these alternatives are listed in the table below.

TOXIC PRODUCTS	*NON-TOXIC SUBSTITUTES*
Drain Cleaners	*Flush weekly with boiling water. Plugged - Force mixture of 1 cup baking soda, 1 cup salt and 1 cup vinegar into drain. After 15 minutes, pour boiling water into drain to flush. Also can use plunger or metal snake.*
Window Cleaners	*Rub newspapers on wet glass.*
Oven Cleaners	*Use baking soda and steel wool for scouring.*
All Purpose Cleaners	*Add 1/2 cup vinegar and 2 tablespoons cornstarch to 1 gallon warm water, or 2 tablespoons borax to every 3 cups warm water.*
Bleach	*Add 1/2 cup baking soda to boost detergent. Use powder bleach, if at all.*
Detergent	*Use pure soap flakes, or is using detergents, choose phosphate-free, biodegradable brands.*
Fertilizers	*Use mulch and compost. Switch to ground cover, woods chips and edible landscaping.*
Ant and Roach Poison	*Place either cream of tartar, red chili pepper, chopped bay leaves at entry points. Try boric acid for roaches, but keep children and pets away.*

Proper Disposal of Hazardous Waste:
Most secondary treatment facilities cannot remove toxins found in sewage. Many toxins can corrode the sewer pipes before they even make it to the treatment plant. So, if it is a hazardous product, do not dump it down the drain, dispose of it through an accepted hazardous waste collection program.

·Work in your community for frequent hazardous collection days.

·One gallon of oil can contaminate one million gallons of drinking water. (Ehrlich, 1989). Waste oil can be returned to the place of purchase, vendors are required to accept used oil with proof of purchase. There are also several waste oil collection sites in the Buzzards Bay area, such as in Dartmouth at the Southeastern Massachusetts University Garage (Power Plant parking lot). Contact your local Conservation Commission for information on oil collections in your community.

·Toxins in paint can leach into the groundwater from landfills. Oil paints can be donated to a friend or to local community groups that may need paint for town projects. If it's latex paint, spread it out on newspaper until it dries. Once it is dry, it can be disposed of in the landfill without the risk of toxins leaching.

·The acid from discarded batteries can corrode many substances. Buying rechargeable batteries may be more expensive initially, but in the long run, it offers savings in the pocket and to the environment. Used batteries are being accepted at many recycling centers, or take them to the next hazardous waste collection in your area.

To avoid contamination from septic systems and cesspools:

Septic systems are a large source of fecal coliform in our drinking and swimming waters.

·Do not use the toilet as a garbage can. Sanitary napkins, paper towels, grease, hair, oil, and coffee grounds all prevent proper filtration.

·Do not put additives or chemicals in the system. These chemicals not only may leach into the drinking-water well, but also may kill the bacteria that are needed to decompose the organic matter. One gallon of septic cleaner can contaminate 22 million gallons of groundwater. (Environmental Institute, no date).

·The system should be inspected every year. If the scum and sludge layer is higher than one third the level of the tank, the tank should be pumped out. Also check that the inlet and outlet pipe connections are free of any solids. Your local Board of Health officials can help you inspect your system, or put you in contact with someone who can.

·Your septic tank and cesspool should be pumped out at least every 2-3 years, depending on the size of the tank and the volume of wastewater. When the sludge level increases beyond the capacity of the tank, there is not enough time for the solids to settle out, thus, they flow into the filtration zone and beyond. (Ohio Cooperative Extension Service, no date).

Water Conservation Techniques:

Senator Daniel Moynihan of New York appropriately said, "You can live without oil, and you can live without love. But you can't live without water." (Coffel, 1989). On average, 16,000 gallons of water are used every day for each individual in the U.S. to go about their daily routine. It takes 3,000 gallons of water to produce one pound of beef and 40,000 gallons to produce the steel used in one automobile. On the individual level, 25 gallons of water are used in the average 5 minute shower and 300 gallons are used to water the lawn for one hour. Every person uses about 60 gallons of water every day, 75% of which are consumed in the bathroom. Yet, this amount can be easily reduced to 35-40 gallons per person per day with simple water conservation techniques. (Mass. Water Resources Authority, no date).

·Leaky faucets should be repaired immediately. A slow drip can waste 75 gallons of water in one week. A steady stream can consume 1000 gallons every week. (Mass. Water Resources Authority, no date).

·38% of the water consumed each day by one person is used in flushing the toilet. Conventional toilets use 3.5-7 gallons of water per flush, so don't waste a flush on a tissue or a bug. If you are buying a toilet, there are low flow toilets available that use only 1.6 gallons per flush. If you cannot afford a new toilet, place a plastic bottle full of water and a few pebbles in the tank to displace the water, reducing the quantity of water per flush. The object is to displace as much water as possible without sacrificing pressure; experiment with different sizes and shapes. Do not put bricks in the toilet tank; they will disintegrate and cause more harm than good. Another water saving alternative to use in your own home is "if it's yellow let it mellow, if it's brown flush it down," this approach may not be appreciated in public facilities.

·Showers are the second largest water consumer in the home. Water saving shower heads can be installed at a minimal cost. Low flow shower heads are available at most hardware stores for $10-$25 and provide high pressure, low volume water flows (don't confuse low flow shower heads with restricted flow). Shutting off the water while you suds can also save a lot of water, as can taking shorter showers. (Mass. Water Resources Authority, no date).

·Simply shutting off the water whenever its not being used can save gallons of water. When you do the dishes, don't keep the water flowing constantly, fill a rinse basin and a soap basin and go from there. This simple exercise can save 8-15 gallons per day. When you brush your teeth, turn the water on only to rinse, not during the brushing process, saving 4-10 gallons per day. (Mass. Water Resources Authority, no date).

·Lawns are another consumer of vast amounts of water. If you feel you have to water the lawn, do so before 9:00 am or after 9:00 p.m. to minimize evaporation. Also, don't cut the grass shorter than 3 inches in height to maximize dew retention and shade.

·The average dishwasher cycle uses 15 gallons per load, and the average washing machine consumes 30-50 gallons per load. A considerable amount of water can be saved by not running either of these machines until you have a full load. (Mass. Water Resource Authority, no date).

·For more information on water conservation techniques call 617-242-SAVE (Massachusetts Water Resource Authority).

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Issues Workshops Overview

by Bruce Rosinoff, Project Staff

editor's note: In the last issue of the Buzzards Bay Project Newsletter we published a summary of the first two Issues Workshop, below are summaries of the last three. The information garnered from these workshops will be instrumental in the formulation of the Comprehensive Conservation Management Plan (CCMP). Although recommendations were made at the workshops, they have not been officially adopted by the Project.

SHELLFISH PROTECTION/LOCAL WATER QUALITY

·The Shellfish Sanitation Program is designed to identify where shellfish can be harvested while protecting public health. It should not be viewed as a water quality program or a program devoted to maximizing the shellfish resource.

·The Shellfish Sanitation Program serves as an excellent indicator of localized water quality degradation. It provides communities with valuable data on water quality conditions, sources of contamination and other related information that towns should use to conduct a water quality program.

·The joint program to conduct sanitary surveys, engineered by the Division of Marine Fisheries with the assistance of town personnel, was the first time in any coastal state that such a program was undertaken. DMF deserves much credit for ensuring the consistency demanded by the U.S. Food and Drug Administration while simultaneously coordinating 77 volunteers.

·In towns that made the commitment of personnel to work with DMF, the process of correcting certain types of sources, such as failing septic systems and illegal connections, has been shortened through the first-hand involvement of Board of Health agents capable of issuing administrative orders. Thus, the best way for towns to maintain participation in the shellfish sanitation program is for the Selectmen to delegate local responsibility to a person representing the Board of Health. This should involve explicit delegation of responsibility and the necessary time to adequately fulfill the required duties.

·Due to the joint surveys, town personnel now have a clearer understanding of the constraints that DMF must work under, and are formulating ways in which they can operate more cooperatively and effectively with that agency.

·Local communities should appoint an individual to coordinate all water quality issues within town. This is important not only to identify a source for information, but to have someone who can work between town boards and sort out critical issues. Town boards will work most effectively when they are fully educated on water quality problems and can act in concert with each other. This is occurring in several towns that have appointed coordinators and it is a model that should be followed by all towns.

·Other important components of a comprehensive local water quality program include: an active health agent; a biologist working for the town; a small local laboratory; a vocal citizens group concerned about pollution; and strong leadership from the selectmen.

·If coordinated appropriately, a local water quality program can operate on a small budget, with existing personnel and volunteers contributing most of the effort. One town found that sizable contributions from concerned property owners are not difficult to come by if a sincere and well-planned effort is made to solicit support.

·Relative to stormwater runoff problems, towns should incorporate specific drainage system designs into their Subdivision Control Bylaws. In addition, town departments of public works and town engineers can help design and construct stormwater treatment facilities without bid solicitation. This will save thousands of dollars as demonstrated in Bourne with the Electric Avenue Beach Facility.

MANAGING TOXIC SUBSTANCES AND HAZARDOUS WASTES

·We must be especially careful when transporting oil from one spot to another when on water. Fishing vessels present a major potential problem when they change oil, which is almost every trip - 100 to 120 gallons is exchanged. Oil is dumped off boats mostly because of the cost factor and convenience. It costs 30 cents per gallon to dispose of waste oil. Hopefully, there will be disposal options on city docks.

·Between 1969-1989 over 1600 tons of petroleum hydrocarbons were accidentally spilled in Buzzards Bay. During the same period, over 2000 tons of hydrocarbons from other sources (sewage effluent, stormwater runoff, industrial effluent) were also discharged into the bay.

·Two strategies for oil spills - prevention (safety features such as double hulled tankers) and mitigation. For mitigation to be successful, procedures should be well known, and must have rapid response.

·Coast Guard manages coastal spills, DEP manages inland spills. Cleanup is handled through a contractor such as Clean Harbors orJetline. A federal strike team is responsible for major spills, but due to budget cuts, closest team is in Alabama.

·The variables for controlling spills include: volume (first order of business, shut off source and contain spill); location (particularly sensitive areas may be closed to tanker passage); product characteristics (light oil spreads faster than crude oil and causes different environmental effects); environmental factors (tide, weather, waves).

·Response strategy: stop the source, contain spill, keep spill from highly vulnerable areas with booms and skimmers; move and detain oil for cleanup.

·Bridge abutments can be used to fit booms either at the time of construction or they can be retrofitted. A lesson learned from World Prodigy Spill in Narragansett Bay.

·Local oil spill contingency plans are being updated from 1981. The plans will identify vulnerable areas, map access points, detail equipment availability. The fire department is the best spot to store equipment. There will be site specific strategies for response, but judgment will be required for each event.

·There needs to be better distribution of contingency plans thanin 1981. Copies should be available in many places.

·Communities should take proactive approach: schedule regular drill events, select a coordinator, contact Coast Guard; update the contingency plan; pass underground storage tank regulations; through Conservation Commission ensure that road drains are not directed toward sensitive areas.

·Local resources may be brought to bear during a cleanup effort by supplying: manpower, equipment and information on critical areas.

·The community should not have to incur any costs. The contractor will bill the Coast Guard or DEP. The Coast Guard will give the contractor the go-ahead. The DEP allows immediate cleanup in an emergency. Complete the necessary paperwork later.

·Suggested approaches for waste oil collection by town: vendors contribute to a town facility rather than having their own; take oil back to vendors with sales receipt; put a 50 cent per quart deposit to town to help with disposal; develop standards for collection by retailers.

·Martha's Vineyard Waste Disposal District has had 10 household and small quantity generator collections costing $51,000 (70% for transporter, 10% labor, 10% advertising, 10% postage and printing). Participation increased from 2.5% in 1985 to 9.5% between 1987-1988. Quantity: 118 drums of waste collected - 4.6 tons that will not go to landfills! 80% is waste paint and paint solvents.

·Yearly household hazardous waste collections are not the answer. A permanent program like the Vineyard's is the correct approach. Collection must be made as convenient as possible.

·Source reduction strategy: use product completely; let waste paint dry before disposing; reuse; purchase non-toxic alternatives. Three necessities are vinegar, baking soda, and salt, which can be used to create many non-toxic cleaning products.

·People in general do not want to pay a fee for hazardous waste disposal. They must be educated about the problem. The costs for operation at the town level should be contained in the solid waste budget.

Judith Gregg

Hazardous waste containers stored near a local river.

·There are no guidelines for most chemicals - only 14 are regulated by FDA. We are not addressing potential problems. We need: federal action from FDA and EPA for new standards; additional health advisories and a monitoring program at the state level; a reduction of chemicals entering the environment that is implemented at all levels of government.

·There is a lot of evidence that heavy metals and volatile organics are not depurated by shellfish. Bottom paints on boats have contributed to heavy metal loading.

SEWAGE TREATMENT

·Spray Irrigation technology can work effectively if it is managed properly from the beginning. A management plan should be adopted and implemented. Important components based on the Falmouth experience are: 1) the spray must be distributed evenly; 2) the pipes should be snaked in with minimal disturbance to the ground and vegetation; 3) vegetation should be mowed down regularly and; 4)there needs to be a selective harvesting of trees to maintain a better distribution of thin trees. In Falmouth, 73% of the nitrogen was retained by the plants after spray irrigation. Ultimately, you need to harvest the plants and dig up the grass as part of the overall management plan.

(editor's note: Falmouth disposes of the end product from their sewage treatment plant by spraying it over several acres of woods and grasses. The plant life takes up the nutrients and binds the metals.)

·Present wastewater technologies use many hazardous chemicals and can produce toxic sludges. These technologies also have associated costs that are reaching exorbitant levels. Some alternative technologies use aquacultural

continued on page 16

PCBs in New Bedford Harbor and Acushnet River

by Frances Brewster, Newsletter Staff

The History

It all began in 1881. Fire-resistant, colorless, odorless liquids called polychlorinated biphenyls, otherwise known as PCBS, were developed. These chemicals have been used for flame retardent protection and insulation, as well as for the manufacture of fluorescent lights, plastics, paints, rubber, heating equipment and carbonless copying paper. An estimated 100 tons of PCBs were dumped into the Acushnet River and New Bedford Harbor from the 1930s to the late 1970s, mainly by two electrical equipment manufacturing companies that produce electrical capacitors.

It was not until 1979 that the government imposed a ban on PCBs, based, in part, on tests that found one kind of PCB to cause cancer in laboratory animals. The cumulative health effects of PCBs in humans are still unknown. Three years later the U.S. Environmental Protection Agency designated the river and harbor to the national priority list of hazardous waste sites under the 1980 Superfund legislation. A suit has since been filed by the federal government against five New Bedford companies to pay for damages, the cost of research, the clean-up costs and the government's legal fees. The trials are scheduled to begin in February 1990, six years after the suit was filed.

Health Effects of PCBs

Nobody can agree on the health effects of PCBs on humans. Some officials claim that PCBs probably cause cancer in humans, and may contribute to liver and reproductive problems. However, using the same data, other officials say there is no evidence that PCBs cause cancer. In Japan, dozens of people developed cancer and other illnesses after PCBs contaminated a batch of rice oil. However, scientists believe that polychlorinated dibenzofurans, created by the heating of PCBs, were the culprit.

Other studies have found that high doses of PCBs can cause liver cancer in laboratory animals. Dr. Kenneth Chase of Washington Occupational Health Associates, working on the defense of one of the capacitor manufacturing companies, claims that "the studies are based on artificial circumstances." According to Dr. Chase, the studies on laboratory animals were done using the most chlorinated forms of PCBs, which were rarely used by the New Bedford companies. Dr. Chase also sites the results of a study done on workers in the New Bedford capacitor manufacturing plant and in a New York General Electric plant in which there was no increase in cancer rates from handling the PCBs. The EPA has chosen to "err on the side of caution to protect public health," and has said that fish with more than two ppm of PCBs are unsafe to eat.

The Legal Battle

The first natural resources damage case to be tried under the 1980 Superfund legislation is scheduled to begin February 6, 1990. The complex and lengthy trials are predicted to run into the next century. Five companies in New Bedford are being sued for dumping PCBs into the Acushnet River and New Bedford Harbor. AVX Corporation is being sued as the "surviving corporation" of Aerovox Corporation, who dumped PCBs from 1947-1973. Belleville Industries, who sold its assets to Aerovox Industries and dissolved in 1987, is being re-established to stand trial. Aerovox, Incorporated, though they have never used PCBs, is being sued as the successor to Belleville Industries. Finally, both Cornell-Dubilier Electronics Incorporated of New Jersey, and its parent company from 1960-1983, Federal Pacific Electric Company, are being sued.

Judith Gregg

The Acushnet River, New Bedford, Massachusetts.

On top of the federal suit, the capacitor manufacturing companies are in a battle with their insurance firms over who will pay for the legal fees and, if found liable, the damages and cleanup fees. To date, the legal fees have been estimated at $20 million. Based on damages to the lobster fishery, housing values and recreational resources, the EPA has estimated the total damages of New Bedford Harbor and Acushnet River to be $50 million. Estimates for the total cleanup have been as high as $100 million. Thus, the five companies, if held liable, stand to loss everything. In addition, hundreds or thousands of jobs in the area may be threatened.

The Cleanup

Thanks to Congress, New Bedford Harbor does not need to wait for the legal battle to end before cleanup can begin. The EPA has announced a $14 million plan to dredge the PCB contaminated sludge from the hot spots in the river and harbor. The sludge will then be dried to 50% solid and burned in an incinerator at the end of Sawyer Street.

However, not everyone agrees with the EPA's plan. Some Sawyer Street residents do not trust the EPA after the last dredging project they did at the end of Sawyer Street that kept them awake all night and deposited dust all over the neighborhood. There is also concern that the incinerator will contribute to air pollution.

The New Bedford Area Environmental Community Work Group is worried about the EPA's planned treatment of the ash by-product. The EPA plans to bury the ash which contains high concentrations of heavy metals, such as cadmium and lead, at the incinerator site. At least on

continued on page 14

Update on The Coalition for Buzzards Bay Activities

by Mimi McConnell, Executive Director

Like our sister organizations everywhere, both within the Coalition and beyond, we have an overflowing plate at present. Bite by bite we are working our way through it, and invite the readers of this newsletter to keep in touch with us on any of the following items where partnerships are logical and empowering -- our phone number is (508)759-5761, ext. 334; our address, PO Box 268, Buzzards Bay, MA 02532.

Earth Day -- we are serving as a clearinghouse for the Buzzards Bay watershed, linking groups together; sharing ideas; supplying pledge cards, curricula, and resolutions; compiling a list of suppliers of trees and other vegetation for planting on **April 22**, Earth Day around the globe. Let us hear from you!

Marine Pump outs and Septic Systems -- we're plunging into a massive public education effort, through our new contract with the US Environmental Protection Agency, to promote responsible behavior by the boating public and everyone with a septic system. We will have "Clean Water" weeks Town-by-Town this spring and summer to heighten public awareness and compliance.

Second Annual Environmental Report Card -- as promised in 1989, we have gotten tough with this year's questionnaire to the 12 municipalities included in this project, emphasizing **enforcement** and cooperation within and among Towns. Results of the questionnaire and interviews will be released in early March.

Oil Spill Contingency Plan -- none is in place in the Buzzards Bay region, but we are working with the US Coast Guard, Massachusetts Coastal Zone Management, and Representative Gerry Studds' staff to bring communities together to share equipment and personnel in the event of oil spills. We were catalysts for a November 3 meeting in Dartmouth of about 30 Bay-wide representatives. How-to workshops are being held in various Towns, with drills set-up by the Coast Guard to be conducted in March. Growing out of this oil spill work is possible legislation to require **pilots on ships in Buzzards Bay**; attorneys who are Coalition members are studying this problem and will recommend action shortly. **To report petroleum or chemical spills, call the Coast Guard in Providence at (401)528-5335.**

Annual Meeting, Guests, and New Officers and Board Members -- our December 3, 1989 Annual Meeting in New Bedford was sparked by a rousing address by US Senator John F. Kerry; wise words by Jeffrey Benoit, new Director of Massachusetts Coastal Zone Management; and, election of the following: President - Shirley Schlothauer, Westport; 1st Vice President - Stephen C. Smith, Freetown; 2nd Vice President - Irwin Marks, Acushnet; Secretary - Thomas W. Kingman, Pocasset; and Treasurer - David B. Mann, Buzzards Bay. New Board members include: Jeffrey Carlson, Plymouth; Kristin Gjerde, Woods Hole; and Sibley Reppert, Westport.

Buzzards Bay Guardian Awards -- also at the Annual Meeting, our first-ever Guardian Award honored citizens serving as effective "savers" of the Bay: Natalie Garfield of Dartmouth, Victor Brunette of Fairhaven, Mayor John Bullard of New Bedford, and Anne Dewees of Falmouth.

Traveling Photo Exhibit -- photographs of the Bay by 16 Southeastern Massachusetts University students were unveiled at the Annual Meeting as a forerunner of showings throughout the watershed in 1990. **A special stint for this handsome exhibit is set for the State House, Doric Hall, March 5 - 9, 9:00 am - 5:00 pm daily. All are invited to its opening, March 5, 3:30 - 4:30 pm.** Sponsors are Senators William Q. MacLean, Jr. and Henri S. Rauschenbach and Representatives Thomas S. Cahir and Charles N. Decas. Unabashedly, the State House showing will be a "silent lobby" for State funds to match Federal dollars for continuation of the Buzzards Bay Project!

Cape Cod Commission Act -- we are part of a larger coalition of 33 environmental groups across New England and the Commonwealth who worked for passage of this bill on Beacon Hill. We are continuing to link up with others to promote a favorable vote on the Cape on March 27.

State of the Bay Reports -- this monthly report, based on shellfish bed closures from the Massachusetts Division of Marine Fisheries, continues to keep the public informed on the general health of the Bay. The number of acres still closed this winter remained unseasonably high, 16,104 as of January 1. Road runoff, septic systems, marine waste and animal waste are all factors in the fecal coliform contamination that triggers shellfish bed and swimming beach closures, seasonally. People are urged not to feed geese, ducks, swans, or other water birds, and also to clean-up after dogs on the beach year-round. Regular pumping of septic systems and replacement of faulty ones, recycling of oil, use of boat pump outs, taking care not to spill harmful compounds down storm drains or household drains -- all these are part of the personal responsibility fundamental to taking care of the Bay!

Where we are -- the Massachusetts Maritime Academy graciously provides us with office space in Room 207, Storer Building, on the campus in Buzzards Bay. Three of us hold down the fort, myself, Susan Boni, and C.W., our fishy mascot. Call or come and see us anytime!

This photo by David Allen of Westport is part of the Coalition's traveling exhibit on display in Doric Hall, State House, Boston, March 5 - 9. Everyone is welcome at the Opening Reception, March 5, 3:30 - 4:30 pm. Later the exhibit will make its way into all the communities around Buzzards Bay to heighten public awareness of the role we each play in caring for the Bay. Work by 16 Southeastern Massachusetts University students makes up the show.

CALENDAR

MARCH

10

Saturday
Water Conservation - 1:30 p.m. Learn ways we can all help to ensure clean water for ourselves and future generations. Call Green Briar Nature Center at (508)888-6870 for more information. Fee: donation to Center.

11

Sunday
Rocky Shore Ecology - 1:30-3:30 p.m. Lloyd Center Executive Director Alan Hankin will lead this walk to explore this unique habitat. Fee: $3 for members; $5 for nonmembers; $1 for children under 12. Call the Lloyd Center at (508)990-0505.

24

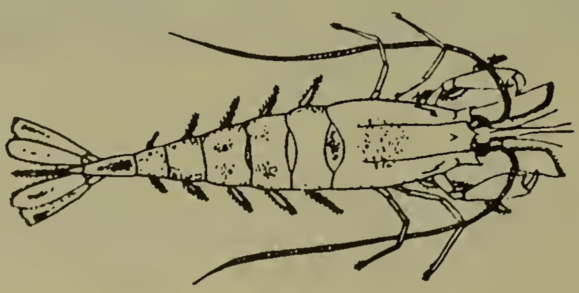
Saturday
Seal Watch - 9:30 a.m.-4:00 p.m. An all-day adventure from the Lloyd Center; see seals, sea birds and explore Cuttyhunk Island! Fee: $30 for members; $40 for nonmembers. Enrollment is limited, so register now with the Lloyd Center at (508)990-0505. Raindate: Sunday, March 25.

27

Tuesday
Marine Mammals - 7:30-9:30 p.m. This Lloyd Center minicourse focuses on marine mammals of Buzzards Bay. Fee: $25 for members; $35 for nonmembers. Call the Lloyd Center at (508)990-0505 to register and for details about a discount on our next Seal Watch!

31

Saturday
Seal Cruise - 9:00 a.m.-12:00 p.m. Join the Thorton Burgess Society for a three hour cruise around the Elizabeth Islands aboard the Patriot, Too in search of harbor and gray seals. The boat leaves from Falmouth Harbor. Fee: $25 for members; $30 for nonmembers. Call the Society at (508)888-6870 to register.



APRIL

7

Saturday
Seal Watch - 9:30 a.m.-4:00 p.m. An all-day adventure from the Lloyd Center; see seals, sea birds and explore Cuttyhunk Island! Fee: $30 for members; $40 for nonmembers. Enrollment is limited, so register now with the Lloyd Center at (508)990-0505. Raindate: Sunday, April 8.

8

Sunday
Shell Walk - 1:30-3:30 p.m. Join the Lloyd Center and discover the diversity of shells to be found on our local beaches. Fee: $3 for members; $5 for nonmembers; $1 for children under 12. Call the Lloyd Center at (508)990-0505 to register.

12

Thursday
What If Hurricane Hugo Hit Cape Cod -- Are You Ready? How to Mitigate Damage - 8:00 a.m.-4:00 p.m. This one-day conference will focus on what can be done to prevent the damaging effects, both economic and ecological, of a hurricane. Location: Marine Biological Laboratory, Woods Hole. Call the Insurance Information Institute at (617)482-6615 for more information.

16

Monday
Half-Hour Nature Discovery Walks - Come explore nature with the Children's Museum at 11:00, 11:30 and noon. Pre-registration is required, so call (508)993-3361 to register.

17

Tuesday
Trash Bash! Recycling Game - Join the Children's Museum for this exciting game. Times: 11:00 a.m.- 12:00 p.m. and 2:00-3:30 p.m. Call (508)993-3361 to pre-register.

17

Tuesday
The Spring Salt Marsh - 10:00-11:30 a.m. Explore the salt marsh with the Cape Cod Museum of Natural History. Fee: $1.50 for members; $2.00 for nonmembers. Call the Museum at (508)896-3867 to register.

18

Wednesday
Water Science - Learn all about water with the Children's Museum. Times: 11:00 a.m.- 12:00 p.m. and 2:00-3:30 p.m. Call (508)993-3361 to pre-register.

19

Thursday
Scrub Safe! - Learn about household hazardous materials and alternatives to their use from the Children's Museum. Times: 11:00 a.m.- 12:00 p.m. and 2:00-3:30 p.m. Call (508)993-3361 to pre-register.

21

Saturday
Slocums River Canoe Trip - 9:00 a.m.-4:00 p.m. Celebrate Spring at the Lloyd Center's first canoe trip of the year. Fee: $15 for members; $20 for nonmembers; canoe rental $4 per person. Raindate: Sunday, April 22. Call the Lloyd Center at (508)990-0505 to register.

21

Saturday
Earth Day Celebration - 9:30 a.m. Help the Thorton W. Burgess Society celebrate Earth Day by planting native Cape Cod trees and shrubs in Sandwich conservation lands. There is no charge and saplings will be provided. Call the Society at (508)888-6870 for more information.

22

Sunday
Celebrate Earth Day - Join the Children's Museum to celebrate Earth Day from 2:00-3:30 p.m. Call the Museum at (508)993-3361 for more details or to register.

22

Sunday
Earth Day Celebration: Scavenger Clean-up - 2:00 p.m. Explore the coastal environment while cleaning it up. Fee: $1.00 for members; $1.50 for nonmembers. Call the Cape Cod Museum of Natural History for details at (508)896-3867.

26-29

Thursday-Sunday
Ecological Waste Management - This four-day workshop from the New Alchemy Institute will cover household and municipal waste management, including water conservation and efficiency, and various new techniques for treating waste. Fee: $240 for members; $300 for nonmembers. Call New Alchemy at (508)564-6301 to register.

28

Saturday
Earth Day Beach Clean-up - Join the Thorton W. Burgess Society from 9:00 a.m.-12:00 p.m. for the third annual beach clean-up in the Sandwich area. Call (508)888-6870 to sign up.

MAY

5

Saturday
Paskamansett River Canoe Trip - 9:00 a.m.-4:00 p.m. Explore this scenic river that flows through the heart of Dartmouth. Fee: $15 for members; $20 for nonmembers; canoe rental $4 per person. Raindate: Sunday, May 6. Call the Lloyd Center at (508)990-0505 to register.

6

Sunday
Early Shore Birds at Allens Pond - 9:00-11:00 a.m. See the early migrants as they return to our shores. Fee: free for members; $5 for nonmembers; $1 for children under 12. Call the Lloyd Center at (508)990-0505 to register.

13

Sunday
Drifters in our Waters - 1:30-3:30 p.m. Explore the microscopic world of plankton on this walk from the Lloyd Center. Fee: $3 for members; $5 for nonmembers; $1 for children under 12. Call the Lloyd Center at (508)990-0505 to register.

19

Saturday
Global Problems, Local Actions - 10:00 a.m.-4:00 p.m. Visit the Lloyd Center's for the opening of this new exhibit. Free admission. Call the Lloyd Center at (508)990-0505 for more information.

20

Sunday
The Dunes of Horseneck Beach - 1:30-3:30 p.m. Join the Lloyd Center and investigate the ecology of dunes. Fee: $3 for members; $5 for nonmembers; $1 for children under 12. Call the Lloyd Center at (508)990-0505 to register.

Around

by Frances Brewster, Newsletter Staff

This section of the NEWSLETTER is intended to reflect the issues and opinions which are being presented to the public through the local media, and does not represent the opinions of the NEWSLETTER staff or the U.S. Environmental Protection Agency. Discussion is encouraged. Responses may be submitted to the "Letters to the Editor" section.

GROWTH MANAGEMENT PLANS

Buzzards Bay

Under the advice of planning consultant Philip Herr of Herr Associates, the Bourne Planning Board has proposed stronger bylaws to protect its water resources. Under the new bylaws, the resource district would be enlarged with added restrictions on any new businesses in the area. The bylaws also redefine "hazardous" to meet government definitions. After public meetings and hearings, a warrant article will be submitted for the May town meeting. The intent of these changes is to further protect the water supply from such things as nutrient loading, septic discharge and fertilizer and highway run-off from new development projects.

(Bourne Courier, November 15, January 17)

Mattapoisett

Created by the Planning Board after a year long study by planning consultant Burk Ketcham, and approved by the Board of Selectmen, Mattapoisett's new growth management plan awaits public approval. The plan identifies areas of concern and addresses issues such as affordable housing, cluster zoning and water supply protection. The most controversial proposal is one for a water-dependent use district. While the proposal's intent is to protect access to the coast, residents are concerned that the proposal is an invitation for boat yards to expand. Mattapoisett is currently holding public workshops on the plan and public hearings are planned for this Spring.

(Standard Times, December 13 & January 3, The Sentinel, November 15)

STATE BUDGET CUTS AND THE BAY AREA ENVIRONMENT

The House Ways and Means Committee announced $32 million of cuts in the already struggling state environmental departments and programs. Currently, the Department of Environmental Protection (DEP) does not have enough personnel to implement the programs already in place. The 23% cut in DEP's budget will put an added burden on the individual towns. These cuts have an immediate impact on several Buzzards Bay towns.

Sewer upgrades in Bourne and Wareham to protect Buttermilk Bay, salt marshes and cranberry bogs will have to be delayed or continue without the guarantee of state funding. Similarly, funding for New Bedford's new wastewater treatment facilities may be severely cut.

In addition, DEP currently has 3,000 conservation commission decisions in Southeastern Massachusetts and Cape Cod to be reviewed by a staff of seven, and 3,000 priority hazardous waste sites to be cleaned by a staff of 250. There remain 45 hazardous sites in Southeastern Massachusetts and Cape Cod that are not being cleaned.

On a state wide basis, 25 state parks will be closed and many staff who police air and water polluters, regulate development, test shellfish, and perform a variety of other environmental jobs will be cut.

In order to avoid these disastrous cuts, environmentalists believe the state should supplement its revenue with funds from increased taxes, such as an 11 cent tax on gas, increased industrial fees and seizure of unclaimed bottle deposits.

(The Standard Times, November 7 & 22, Cape Cod Times, November 24 & December 18, The Enterprise, December 1 & The Boston Globe, December 17)

THE MOUNTAINS OF GARBAGE CONTINUE TO GROW

Acushnet

A proposal by selectperson Kurt Blaha for Acushnet to pay for the disposal of commercial trash was rejected by the finance committee. Blaha felt that businesses pay higher property taxes but do not gain additional town services. Several town businesses now pay $75 to ship their trash to the B & F Landfill; however, this landfill is expected to be at capacity by the end of May. Other businesses pay SEMASS $50 per ton to take their trash, compared to the $17.20 per ton for the town's residential garbage. While the town is not willing to pay the businesses tipping fee at SEMASS, it is willing to let businesses ship their garbage to SEMASS under the town's quota, and therefore only need to pay $18 per ton to the town ($.80 is for town administrative expenses).
(The Standard Times, December 2 $ 5, The Advocate, December 13 $ 27, January, 10)

Judith Gregg

In the background, the New Bedford Landfill.

The Bay

Bourne

The civil fines assessed by the Department of Environmental Protection for Bourne's violation of state regulations at the landfill will be paid to the Bourne Composting and Recycling committee. The town landfill was not properly compacted or covered and had surface drainage problems. After failing to remedy the problems (discovered in 1985), the town was fined $8,700. In an agreement with the DEP, $7,700 of the fines will go to recycling and composting programs. The remaining $1,000 will go to DEP for its administrative expenses.

(The Enterprise, December 6, Bourne Courier, December 13)

Dartmouth-New Bedford

The Greater New Bedford Regional Refuse Management District is still trying to resolve its garbage problems. The Dartmouth landfill is predicted to be at capacity within one year and the New Bedford landfill will be full within two years; however, the Crapo Hill landfill still needs several permits and $7.1 million in funding. To help with the added costs of garbage disposal, Mayor Bullard has proposed raising the tipping fees for commercial haulers. However, this plan was received with adamant objections that the increased fees would cause the loss of manufacturing jobs. Business objects to the plan on the basis that they already pay for the service several times in higher property taxes and private hauler fees.

Permitting for the new landfill has been delayed by controversy over the wording in an agreement between the towns that would require New Bedford to supply Dartmouth with water if the aquifer becomes contaminated. Officials have little doubt that the state-of-the-art landfill will protect the aquifer from contamination. The landfill designs include a leachate pre-treatment facility, two basins to collect run-off, a clay liner and a synthetic plastic liner.

In addition, there is debate over whether the towns should pay for the Crapo Hill landfill or if Clean Communities should be allowed to build a waste-to-energy facility, landfill and recycling, composting and demolition facility at little or no cost to Dartmouth. Clean Communities has offered free disposal for Dartmouth's residential garbage, half price disposal for Dartmouth's commercial garbage, special rates for New Bedford, a $1 million host fee for Dartmouth and a new garbage truck for Dartmouth every year. However, several officials have reservations about Clean Communities' qualifications to operate a waste-to-energy facility.

(The Chronicle, November 15, December 20, The Standard Times, November 16, December 17 & 30)

SEMASS

Incineration at SEMASS was stopped on two occasions when two barrels labeled cyanide were discovered during processing. Treating the barrels as if they were "acutely toxic," SEMASS personnel made sure the cyanide was safely neutralized and that no cyanide traces existed among the other garbage before operations continued. During the break in burning, SEMASS switched to fuel to supply its energy and trash haulers were routed directly to the landfill.

Several town officials are confident that hazardous waste has not been going to the landfill since SEMASS began monitoring the waste stream both at the incinerator and at the landfill. After a two hour tour, League of Women Voters from the Cape were also impressed by the state of affairs at SEMASS.

However, not all residents are enthusiastic about SEMASS. Several residents have expressed concern that SEMASS solve its existing problems before expansion plans begin. Neighbors complain that the plant emits bad odors, is loud and pollutes the air. DEP officials are denying expansion permits until these problems are addressed. Other residents are concerned about the hazardous waste being accepted as auto fluff (shredded cars). Still others believe that SEMASS has not adequately addressed the recycling of waste.

(The Standard Times, November 29, January 3, The Enterprise, November 29, January 8, The Sentinel, December 13, January 10, Wareham Courier, November 1, January 10)

RECYCLING AND COMPOSTING: NEW USES FOR OLD ITEMS

Acushnet

Acushnet is planning a compost site with New Bedford, Fairhaven and Mattapoisett. The project was approved with a $102,838 budget from the state for a composting program. Since the state faces a budget crisis these funds may not be available for two years, but the town plans to go ahead with the project.

At this point, the town is negotiating with Tilcon quarry for access to 93 acres of land along the Acushnet-Fairhaven boundary. The engineering firm of Camp Dresser & McKee has been asked to determine the minimum start-up cost and to schedule a meeting with the interested towns.

(The Standard Times, December 3, The Advocate, December 6)

Bourne

Bourne is stepping up its composting and recycling efforts with the help of the Bourne Composting and Recycling Study Committee. The Committee, chaired by Pamela Olson, has submitted a budget to address five goals. The first goal, to compost all leaves and yard waste, has focused on the recruitment of volunteers to aid in collections and increase public education. In regard to the second goal, the collection of all brush for shredding, the Committee has submitted a budget request of $5,500 to rent a chipper or tub grinder for the Merry Mulch program. The town is encouraging all residents to bring their Christmas trees to the composting site, or leave them on the curbside for collection. The chipper will also be used for regular brush. For the third goal, the collection of recyclable materials such as glass, cardboard, aluminum, plastic, paper and tin, the committee is asking for $1,000 to build sides on a storage shelter. The Committee is also hoping to construct a structure for a "Take it or Leave it" area for

continued on page 12

Around The Bay
continued from page 11

reusable items, such as furniture and paint. Finally, $5,000 has been requested for an educational and promotional program for recycling. Work has already begun on a video detailing the benefits of recycling.

(The Enterprise, November 6 & 10, December 1, 8, 11 & 29, January 15, Bourne Courier, January 12)

Dartmouth-New Bedford

The New Bedford composting program has been an overall success, but it needs some work. Complaints were made that the leaf collections were not on schedule, which creates problems with the paper bags. Ward I Councilor Ralph Saulnier recommends that the leaf collections be done the day after regular trash collection so that residents can use their garbage cans. The compost program began in October to save space in the towns landfills.

Because the towns landfills are predicted to be at capacity before the Crapo Hill landfill is open, the district has hired Alternative Resources, Inc (ARI) to recommend a recycling program. The district also plans to hire a recycling coordinator to implement the program. ARI will review the options available, the possible markets and the cost of a recycling program for the district, taking into account the residential and commercial needs of the area. ARI hopes to have a plan by the third week in March.

(The Standard Times, November 16, The Chronicle, December 6, January 3 & 17)

Falmouth

The Falmouth Recycling Subcommittee is proposing an aggressive recycling program for Falmouth. Like many towns, Falmouth is predicted to fill its landfill to capacity within five years. If Falmouth were to send all the waste it could to SEMASS rather than to the landfill, the town would exceed its limit at SEMASS by 25%. To combat this problem, the Subcommittee is recommending a curbside recycling program under the direction of a new department within the Department of Public Works (DPW). To obtain the highest possible participation rate, the Subcommittee is recommending that a mandatory recycling ordinance be passed. However, with the town and state budget crisis, getting funding at the town meeting may be difficult.

At present, Falmouth's recycling program is done on a volunteer basis. There is a free collection at the Fire Station on the third Saturday of each month, as well as free admission to the landfill for people with material for the recycling center. However, volunteers at the recycling center are finding that the same group of people are utilizing the center each month. Public education needs to be increased to reach those residents that do not know the program exists.

Composting in Falmouth has had a very successful first year. DPW Director William Owen estimates that the town will have $45,000 worth of loam humus from this year's collection. Owen is considering the purchase of a shredder to speed up the composting process and provide more space for collection.

(The Enterprise, November 1, 6 & 17, December 1, 6, 18 & 22, January 10)

Rochester

Roughly 30% of Rochester's residents are participating in the SEMASS pilot recycling program. Angelo Hazifotis of SEMASS estimates that 3% of Rochester's waste is being recycled. The pilot program was designed to test the effectiveness of the program and to work out any problems before initiating recycling on a large scale. SEMASS officials are trying to increase participation by making the program more convenient to residents.

SEMASS also collected Christmas trees in January for shredding. However, storage of the woodchips may pose a problem.

(The Sentinel, November 1, The Standard Times, December 31, January 17)

Wareham

Plans for a hazardous waste collection day are under way in Wareham. After three years of trying to get state funding, the town is turning to its own resources. A committee is being formed to raise the needed $30,000 for a collection day in late May or June.

While Sullivan Tire Company has offered to take used tires, and Robertson's and Smith's Scrap Metal will accept largemetals (i.e. refrigerators, stoves, etc...) for a fee, Selectperson Phyllis McGraw is proposing that the town establish a free curbside collection program for these and other materials.

(The Standard Times, November 15, Wareham Courier, November 22)

Westport

Westport has begun a voluntary recycling program at the landfill. Brush will be chipped and used for mulch and erosion control at the landfill. Yard waste will be composted and used for cover at the landfill to prevent freezing. Glass will be recycled by Truex Corporation.

Judith Gregg

Frequently recycled items; newspapers, glass and aluminum cans.

Newspaper will be shredded and used for livestock bedding. Large metals will be recycled by Mid-City Scrap. The town has approved $9,000 for a recycling monitor to oversee the program. Officials hope to fill the position by February 1.

(The Chronicle, January 10)

SEWERING PROJECTS

Bourne

Debate continues in Bourne around the sewer installation project for Taylors Point and Buzzards Bay. While the first phase of the project has faced delays from heavy rain and gas leaks, the second phase of the project has faced arguments over its projected costs. The town has planned to install a low-pressure collection sewer system which uses individual grinder pumps and one main pumping station to connect with Wareham's sewage treatment plant. However, residents argue that this project would cost them far more than a gravity sewer system with several smaller pumping stations and forcemains, such as the one utilized in Wareham.

Debate also focuses on the extent of state and federal funding available for each option. While selectperson Marie Oliva insists that the planned system is "the optimum and most cost effective possible...under the regulations and guidelines of the Department of Environmental Protection," resident Arthur Greenberg is convinced that a gravity sewer system would be cheaper in the long run with federal and state reimbursements and less maintenance costs. The Bourne Board of Health has recommended that the selectmen hire an engineering consulting firm to review the project.

(Bourne Courier, November 1 & 22, December 6 & 20, January 17, The Enterprise, November 20 & 22, Wareham Courier, November 15)

Dartmouth

The Executive Office of Human Services will fund the entire Municipal Sewerage Treatment Plant upgrade in Dartmouth. This arrangement was made in 1982 when Dartmouth was chosen as the site for a new Bristol County Jail. The state funding for the project in 1982 was $8.2 million Because of delays in construction of the jail, the sewering project has been delayed. The project has recently been granted $30 million in state funding to cover the cost increases since 1982. Bidding on the sewer system upgrade is due to begin in January 1990.

Dartmouth's new Wastewater Treatment Plant will be able to treat 4.2 million gallons of sewage per day. The capacity of the existing system is 2.2 million gallons per day.

(The Chronicle, December 29, January 10)

Falmouth

As Falmouth considers expanding its sewer system, residents voice concerns that the town eliminate the bad odors from the pumping station and treatment plant before any expansions begin. Town officials held a meeting in November to see how many residents want to tie into the three year old system. The meeting was a preliminary step to determine what the increased demand on the system might be if the sewers were to be expanded. James T. McDonough, DPW commissioner and registered engineer, informed residents at the meeting that the best way to reduce the odors at the plant is to increase fresh sewage inputs. Most of the odor comes from the septage pit where old waste from cesspools and septic tanks are dumped.

While the town is seeking $6.3 million in damages from the contractors and engineers of the aeration system at the sewer treatment plant, Dr. Marilyn Jordan of the Marine Biological Laboratories has found that the system, except for pond one (the subject of the suit), is functioning well. Pond one's aeration system has been clogging, preventing proper oxygen mixing. The town has hired the Wright-Pierce Engineering firm to help rectify the problem, and is seeking reimbursement from the original constructors for the damages. Despite the problems in pond one, Dr. Jordan's four year study found the aeration system effective at absorbing 73% of the nitrates. The system works by spraying sewer effluent over fields and woods which function as a living filter, absorbing the nitrates.

(The Enterprise, November 1, 3 & 24, December 4, January 17)

Marion

As an emergency measure to prevent overflow, Marion's sewage treatment plant bypassed the sand filters and released treated water into Aucoot Cove. Due to heavy rainfall, the sand filters could not treat the sewage as fast as it was coming in. Normally the sewage passes through three lagoons and the sand filters before being treated with chlorine and released. Because the sand filters were clogging and there was greater than normal flows, officials decided to bypass the sand filters. According to selectperson Ted Pratt "the water released already meets discharge permits."

Water samples from Aucoot Cove taken after the sand filters were bypassed contained fecal coliform levels below 10 colonies per 100 milliliters. The Board of Health will continue monitoring the cove.

The town has already begun planning a fourth lagoon to prevent future emergencies. Also in the planning stages is a new treatment facility for boat waste. The facility would use vegetation and natural decay to treat the sewage. This fully funded experiment planned by Ecological Engineering and Ocean Arks International is only awaiting Department of Environmental Protection approval before construction.

(Standard Times, November 28, December 10, 27 & 29, The Sentinel, November 29, December 6 & 20, January 3)

Mattapoisett

The Department of Environmental Protection (DEP) has ordered the Old Rochester Regional School District to make corrections at its sewage treatment plant. The plant has been found in violation of testing, maintenance and operating procedures, as well as exceeding limits for suspended solids in its effluent since its construction two years ago. The DEP is requiring that the district cover the facility to improve treatment in all weather conditions.

continued on page 14

Around The Bay
continued from page 13

Under current conditions, 51 acres of shellfish beds in Pine Island Pond are closed because of the risk of sewage overflow from the ORR plant. Town and Division of Marine Fisheries officials are working on a plan to open these beds if a notification procedure for sewage overflows is established.

(Standard Times, January 4, 17)

New Bedford

A team of engineers and financial experts, created by Mayor Bullard, have found a way to reduce the price of the wastewater treatment facilities plan by $50 million. The reduction in costs comes from reducing the size of the plant by decreasing the demand through voluntary water conservation measures. More savings can be found be renovating the existing plant rather than constructing a new facility, reducing planned restorations for Fort Taber, building a smaller back-up landfill, and eliminating or cutting back on other related projects. By increasing sewer fees now, not only does the city show the EPA that it is committed to rectifying the situation, but also sewer fees will stay at $200 per year rather than increasing to $350 by 2001 to pay for the construction.

In addition to recommending several money saving cuts, the consultants are recommending that the city reverse the order of construction to build pump back facilities for the combined sewer overflows (CSOs) in Clark's Cove before building the wastewater treatment facility. This recommendation is based on findings that the CSOs are a major source of pollution in Clark's Cove. By eliminating the CSOs the city may be able to open beaches and shellfish beds in the area. However, in order to make this change the city must have permission from the EPA since the city is under court order to build a secondary treatment plant before 1995 or face large court fines.

(Standard Times, November 16 & 22, December 15, 20 & 21)

Glossary

A Regular Feature of the Buzzards Bay Project Newsletter

Boom - A floating device designed to contain floating substances.

Ecology - The study of the relationships of plants and animals with each other and with their environment.

Ecotone - A transition area between two adjacent ecological communities usually exhibiting competition between organisms common to both.

Habitat - The surroundings in which an organism or community of organisms naturally resides.

Hazardous Waste - Waste material that is composed of toxic compounds; the material is dangerous to handle and requires special treatment.

Household Hazardous Waste - Toxic materials found within a household; (paint, cleaning products, detergents, etc.)

Hydrocarbon - An organic compound composed of carbon and hydrogen; they occur in all living creatures. They are also found in petroleum products, natural gas, and coal.

Macrophytes - Large, visible plant life, especially those of a water body.

Skimmers - A device used to remove oil from the surface of the water.

PCBS in New Bedford Harbor...
continued from page 6

member of the Work Group and an engineer for the AVX Corporation believe the PCBs should be capped in the harbor and river, not removed and incinerated. Leonard Sarapas, an engineer for AVX Corporation, one of the companies on trial, says the whole area can be covered with a strong woven material at a cost of only $15 million. The EPA's plan, for the same cost, only addresses the hot spots, the remaining PCBs will be dealt with in a later plan. State and federal officials do not want to cap the area because capping does not reduce the amount of PCBs.

The EPA is collecting comments on its plan and will announce its decision by the end of September 1990. A plan to clean the rest of the harbor and river is expected some time in 1991. Copies of the reports and studies can be found at the New Bedford Free Library or the EPA's record center at 90 Canal Street in Boston.

(The Standard Times, August 8, 16 & 17, September 17, 18 & 19, November 3 & 7)

Technical Advisory Committee Winter Update

by Frances Brewster, Newsletter Staff

As the Buzzards Bay Project approaches the completion of the Comprehensive Conservation Management Plan (CCMP), the Technical Advisory Committee (TAC) has met monthly to discuss the individual action plans, and other ongoing programs of the Project.

December 12, 1989

The first item on the December agenda was an update on the New Bedford Sewage Treatment Plant Plan. There has been no consensus among TAC members as to the siting of the outfall. The TAC briefly discussed the option of advanced primary treatment. While the TAC did not feel it was their position to address the facility plans, they did agree that no facility will be able to meet water quality standards unless a pretreatment program is implemented.

After reviewing a proposed letter to the Secretary of Environmental Affairs from the TAC and the Technical Advisory Group (TAG) the TAC members decided that it was not their position to make the statements contained in the letter and that the TAC's name should be removed from the letter.

Joe Costa then asked the TAC to comment on the preliminary segmentation of the Buzzards Bay Drainage Basin. The Bay is being subdivided into segments in order to better implement the management plan. One member felt that the segmentation across the smaller drainage basins was useful in relating land use to water quality, but the larger segments will not provide any useful information for land use management. Concern was raised that segmenting the bay will limit a dynamic system. It was agreed that the bay can not be segmented to the degree that everyone may need, but it can be used to quantify land use management in major embayments. In terms of the specific delineations, the TAC did not have any comments.

Discussion on the Buzzards Bay Management system followed. The four priorities of the Management system were: 1) to continue entering the data of both the descriptive studies and the pertinent data from specific studies funded by the Project; 2) to obtain a more detailed map of the coastline; 3) to obtain the actual data sets; and 4) to get the information in a form readily accessible to the Environmental Protection Agency.

The TAC spent the remainder of the meeting discussing the individual action plans. It was decided that the committee should examine all the plans carefully during the next few meetings. The first action plan addressed was the Stormwater Run-off Action Plan.

Stormwater run-off is the major source of fecal coliform contamination in the bay. Coliforms may not be an adequate indicator of risk, but they are the current standard. A plan to reduce the fecal coliform will also reduce hydrocarbons and other toxics. The goal of the action plan is to eliminate direct discharge into the bay without pretreatment. The TAC made various comments on the specific action plans including clarifications on who decides the best management options and recommendations for ongoing education of town personnel on best management technologies.

January 18, 1990

Joe Costa announced the Research Minigrant Review Committee's recommendations for four minigrant research selections. The TAC approved these recommendations which will now go to the Buzzards Bay Management Committee for final approval.

The remainder of the meeting was devoted to a discussion of the individual action plans. Bruce Rosinoff, author of the CCMP, gave a quick overview of what the stormwater runoff action plan was aimed at. He explained that the main focus of the plan was fecal coliform because more is known about it than other bacteria and viruses. One member commented that calculations indicate that there is a significant amount of fecal coliform that can not be traced to any of the sources outlined in the action plan. He suggested that coliform may be reproducing in the sediment and was concerned that the action plan would not address this problem. The general feeling on this issue was that any reduction in coliform input will reduce overall coliform levels in the bay.

In regard to specific actions, there was a suggestion to eliminate all state exemptions from the Wetlands Protection Act. Currently, all bridge projects and projects widening roads less than one full lane are exempt from meeting the Wetlands Protection Act requirements. There should be some scrutiny on all projects around wetlands.

Another suggestion was made to post bonds for any development project. The bonds should cover all malpractice and faulty design as well as maintenance. In subdivisions where the town does not assume responsibility (i.e. private lanes) a home owners association should assume responsibility for maintenance.

The TAC then discussed the Shellfish Protection Act. The first suggestion was to change the title to "Protection and Enhancement of Shellfish Growing Areas." The Division of Marine Fisheries (DMF) had several objections to this plan and decided to set up a separate meeting with Rosinoff to discuss them. The TAC did suggest that the plan focus its attention on regulating water pollution rather than managing the shellfish resources since DMF already effectively does the latter.

The meeting ended with a discussion of the Boat Waste Management action plan. The question was raised as to whether a town could legally require that no boat with a type I or II sanitation device be allowed to moor in the harbor. Also addressed was the issue of marina pumpout facilities. It was mentioned that marinas are currently required to have pumpout facilities; however, many are not allowed to have underground storage tanks and therefore can not feasibly install the pumpout facilities.

A draft copy of the CCMP will be available for all TAC members in early February. TAC members have been asked to comment on the draft before mid-February. The final draft CCMP will be available in March for public comment.

Issues Workshop...
continued from page 5

processes to treat the water. These processes do not separate out solids and thus do not leave a toxic sludge that must be disposed of safely. It is a technology that should be closely monitored and considered for future use in Massachusetts.

·The Ruck System (a denitrifying septic system) removes 60-80% of the incoming nitrogen compared to the 30-35% removed from typical Title V systems. A system that is presently being studied in Falmouth costs $15,000. In New Jersey, where they are being produced in greater numbers, the costs are between $8,000-$9,000. A regular Title V system in good soils costs between $2,500-$3,000. No maintenance is needed for the Ruck system and an area as small as 1/4 acre can be used for proper installation.

·Privately owned small wastewater treatment plants have both major advantages and serious disadvantages. The advantages are: a 7-fold increase in the treatment of nitrogen compared to septic systems; regular monitoring; cluster development and open space are enhanced by only needing one disposal site. The disadvantages are: concentration of effluent in one place; concerns over ownership responsibility; assuring proper operation and maintenance; growth implications.

·The State DEP has limited manpower to regulate private treatment plants. It is therefore advisable for towns to allow them only where the requisite resources and expertise exists within the Board of Health to carefully manage the facilities. Specific Board of Health regulations will help ensure effective management.

·The 50 foot setback distance between septic systems and coastal wetlands may not be adequate to entrap viruses. Viruses have a 50-100 day survival rate and based on typical groundwater flow conditions, there should be a setback distance of 200 feet. Data on virus transport is available to Boards of Health and should be used to address the issue of appropriate setbacks. The goal should be to establish a regulation that is defensible.

*Title V regulations will most likely never deal with cumulative impacts. It will be left to Boards of Health to review applications in a broad context that goes beyond individual septic systems.

*Legislation should be developed that would allow Boards of Health to undertake repairs of condemned septic systems using state house bonds to initially pay for the repairs, and then recuperating these funds through a betterment charge on the homeowners taxes over a 5 to 10 year period.

*Boat waste is a low priority for the DEP. However, the destination of pumpout waste stored in tight tanks is one of the Department's biggest dilemmas. The capacity of treatment plants to accept boat waste is the major problem. The Department is therefore trying to limit the number of tight tanks that are approved.

*The first priority of a pumpout program at the local level should be education. In addition, clearly understood procedures for using a facility and enforcement are also important components.

*The marine industry has developed a new biodegradable product for disinfecting and deodorizing boat wastes, eliminating the need for chlorine and formaldehyde. Currently, the state Department of Environmental Protection is studying the product before allowing it to be sold to the public.

*An approach to eliminating the boat waste problem: anyone renting a mooring signs a statement saying that they will seal the head and giving the marina authority to inspect at any time. If the boat is found to be out of compliance, it is evicted from the mooring and fined for non-compliance.

*If every boat had a quick disconnect system, a pumpout could be provided as a regular service. It would make the process very easy. Otherwise, unless the operator is on board or leaves a portable unit on deck, there is no way to pump out the tank.

*The pumpout facility should be housed next to the gas pump or the potable water supply. This will ensure greater use of the facility because all boats eventually will need gas and water.

*Boat owners should be regulated the same as any other potential polluter. It is an equity issue. We should have the political willpower to enforce regulations against the discharge of boat waste, as well as charge the boater his fair share of the cost of administering a local program. This should be done through an increased excise tax on boats that is closer to that charged on cars, as well as through taxing boats as real property.

Management Plan...
continued from page 1

to the staff writing the plan. A draft management plan will be available for public review by the end of March. A series of public hearings will be scheduled for May and June. The final plan will be prepared based on comments received.

The Buzzards Bay management plan will be a "living document" and will periodically be revised as new information becomes available and the effectiveness of management actions is evaluated. Problems in estuaries like Buzzards Bay are complex and cannot be solved overnight. The project staff both at the state and federal level will work hard in the coming years to help communities implement the recommendations contained in the management plan, because only with the solid support of citizens around the bay and with the action of local government will we be able to preserve this valuable resource.

For further information on the public hearings or to obtain a copy of the Buzzards Bay Management Plan, contact the Buzzards Bay Project Office in Marion at (508)748-3600.

Directory of Environmental Organizations in Buzzards Bay

by Frances Brewster, Newsletter Staff

A primary goal of the public education program of the Buzzards Bay Project is to provide information and resources to communities in the region. This is the final section of the list of area organizations involved with some aspect of environmental concern. In this issue are the towns of Bourne, Falmouth, and Gosnold. If you know of any group or organization that be included for this listing please contact the Lloyd Center for Environmental Studies at (508)990-0505.

BOURNE

Bourne Town Hall
24 Perry Avenue
Bourne, MA 02532
Board of Health 759-3435
  Composting and Recycling Study Committee
    Contact: Pamela Olson - Chairperson
  Conservation Commission 759-8145
    Contact: Cynthia Smith - Chairperson
    Robert Gray - Vice Chairperson
  Natural Resources Department 759-3441
    Contact: Clarence Merritt - President
  Planning Board 759-6295
  Selectmen 759-4486
  Tree Warden 759-3441 or 759-4487
    Contact: George Handy

Aptucxet Garden Club of Bourne
P.O. Box 407
Cataumet, MA 02534
(508) 563-6583
Mrs. Joseph Kiebala - President

Bourne Shore and Harbor Committee
281 Barlows Landing Road
Pocasset, MA 02559
(508) 564-4028
D. Russell Tarbell

Bourne Task Force on Local Pollution
405 Barlows Landing Road
Pocasset, MA 02559
(508) 563-5301
Stephen Kane - Chairperson

Bourne Water District
211 Barlows Landing Road
Pocasset, MA 02559
(508) 563-3772

Buzzards Bay Civic Association
P.O. Box 305
Buzzards Bay, MA 02532
(508) 759-4762
Susan Weston - President

The Coalition for Buzzards Bay
at The Massachusetts Maritime Academy
P.O. Box 268
Buzzards Bay, MA 02532
(508) 759-5761 ext. 334
Mimi McConnell - Executive Director

Concerned Shellfishermen of Massachusetts
P.O. Box 415
Buzzards Bay, MA 02532
(508) 759-5226
Paul Girard - President

Jefferson Shores Association
46 Jefferson Shores Road
Buzzards Bay, MA 02532
(508) 759-4779
Mrs. Ruth Mullins - President

Little Buttermilk Bay Association
19 Little Bay Lane
Buzzards Bay, MA 02532
(508) 759-9714
James Mulvey

The Marine Fisheries Education Program
Massachusetts Maritime Academy
Buzzards Bay, MA 02532
(508) 759-5761
Professor Jack Callaghan - Director

Massachusetts Division of Fisheries and Wildlife
Southeast Wildlife District
195 Bournedale Road
Buzzards Bay, MA 02532
(508) 759-3406
Louis Hambly - District Manager

Massachusetts Division of Marine Fisheries
18 Route 6A
Sandwich, MA 02563
(508) 888-1155
John D. Fiske - Chief of Research

Monument Beach Civic Associates
P.O. Box 483
Monument Beach, MA 02553
(508) 759-3449
Florence Prince - President

continued on page 18

Directory...
continued from page 17

Monument Beach Sportsmen's Club
P.O. Box 331
Monument Beach, MA 02553
(508) 548-2814
Roland Beliveau - President

North East Marine Environmental Institution
P.O. Box 660
Agawam Point Road
Monument Beach, MA 02553
(508) 759-4055
Paul Shave

Quamhassett Homeowners Association
P.O. Box 602
Buzzards Bay, MA 02532
(508) 759-2168
Judy Todesco - Treasurer

Taylors Point Association
14 Wright Lane
Buzzards Bay, MA 02532
(508) 759-4999
Richard E. Secher - Treasurer

GOSNOLD

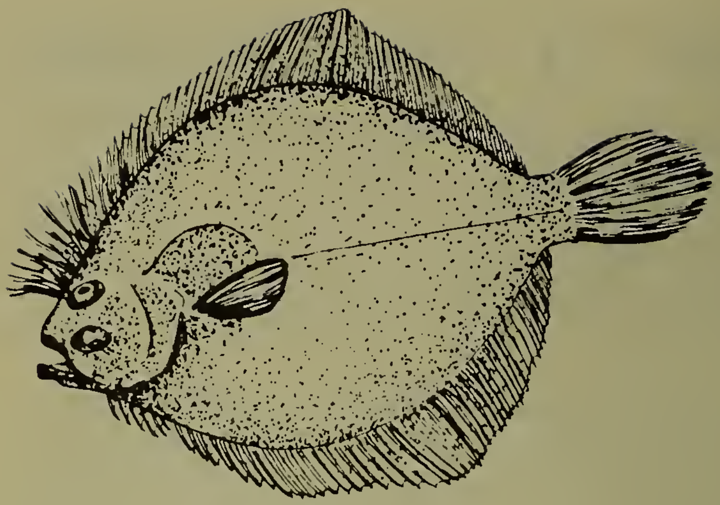
Town of Gosnold
Cuttyhunk Island, MA 02713

Cuttyhunk Historical Society
P.O. Box 165
Cuttyhunk Island, MA 02713
Mrs. Janet Bosworth - Curator

Elizabeth Island Association (EIA)
16 Hamilton Gate
N. Kingston, RI 02852
(401) 295-5527
A.C. Brown - Vice President

FALMOUTH

Falmouth Town Hall
173 Main Street
Falmouth, MA 02540
(508) 548-7611
  Beach Committee: Ellen Mitchell - Chairperson
  Board of Health: David Carignan - Health Officer
  Conservation Commission: Pamela Truesdale - Conservation Administrator
  Harbormaster: John McCarthy
  Planning Board: Brian Currie - Administrator
  Natural Resources Department: William Richardson - Supervisor
  Selectmen: Raymond Labossiere - Chairperson
  Tree Warden: Brian Dale



American Littoral Society, Northeast Region
P.O. Box 301
3 Water Street
Woods Hole, MA 02543
(508) 457-1499
Don Bourne - Regional Director

Ashumet Holly and Wildlife Reservation
286 Ashumet Road
East Falmouth, MA 02536
(508) 563-6390
Elwood Mills, Jr. - Director

Citizens for the Protection of Waquoit Bay - Coastal Ponds Project
P.O. Box 21W
Waquoit, MA 02536
(508) 548-1087
Don Bourne - Chairperson

Citizens Monitoring of Water Quality in Coastal Ponds
Sea Grant Program
Woods Hole Oceanographic Institution
Woods Hole, MA 02543
(508) 548-1400 ext. 2289
Dr. Alan W. White - Marine Science Advisor

Coast Lines Project
P.O. Box 331
Woods Hole, MA 02543
(508) 548-2673
Bill Sargent - Director

The Ecosystems Center
Marine Biological Laboratory (MBL)
Water Street
Woods Hole, MA 02543
(508) 548-3705
John Hobbie - Director

Falmouth Council on Civic Beautification
195 Nursery Road
Falmouth, MA 02540
(508) 540-5045
Rebecca Gillespie - Secretary

International Wildlife Coalition
P.O. Box 388
634 North Falmouth Highway
North Falmouth, MA 02556
(508) 564-9980
Daniel J. Morost - President

The League of Women Voters of Falmouth
P.O. Box 450
Falmouth, MA 02541
(508) 563-6358
Ruth Brazier - Board Member

National Marine Fisheries Service Aquarium
Water Street
Woods Hole, MA 02543
(508) 548-7684
Fred Nichy - Director

National Oceanic & Atmospheric Administration (NOAA)
National Marine Fisheries Service
Northeast Fisheries Center
Water Street
Woods Hole, MA 02543
(508) 548-5123
Allen Peterson - Science Director

New Alchemy Institute
237 Hatchville Road
East Falmouth, MA 02536
(508) 564-6301
Ann Milliman - Public Information Director

North Falmouth Village Association, Inc.
P.O. Box 762
North Falmouth, MA 02556
(508) 563-2650
Jean Work - President

Nye's Neck Association
c/o Janet Chadie - Secretary
P.O. Box 906
North Falmouth, MA 02556
(508) 359-4939

Ocean Arks International
1 Locust Road
Falmouth, MA 02540
(508) 540-6801
Joan Wilder-Director of Development

Otis Fish and Game Club
P.O. Box 975
Pocasset, MA 02559
(508) 564-6442 or (508) 224-2065
Michael Veloza - President

Pocasset Village Association
PO Box 774
Pocasset, MA 02559
(508)563-5301
Steve Kane - Chairperson

Salt Pond Areas Bird Sanctuaries, Inc.
881 Palmer Avenue
West Falmouth, MA 02540
(508) 548-0711
Ermine Lovell - President

Sea Education Association (SEA)
P.O. Box 6
Woods Hole Road
Woods Hole, MA 02543
(508) 540-3954
Science Department - Senior Scientist

Sea Grant Program
Woods Hole Oceanographic Institution (WHOI)
Woods Hole, MA 02543
(508) 548-1400 ext. 2398
Lee Anne Campbell - Sea Grant Communicator

Seascape Association, Inc.
P.O. Box 539
North Falmouth, MA 02556
(508) 564-4145
Jean Tuleja - Secretary

The 300 Committee
P.O. Box 546
Falmouth, MA 02541
(508) 540-0876
Christine Dolen - Administrator

United States Geological Survey
Quissett Laboratory
Woods Hole, MA 02543
(508) 548-8700
Brad Butman - Branch Chief

Woods Hole Oceanographic Institution (WHOI)
Woods Hole, MA 02543
(508) 548-1400 ext. 2270
Shelly Lauzon - Public Information Office

Woods Hole Research Center
P.O. Box 296
13 Church Street
Woods Hole, MA 02543
(508) 540-9900
Dr. Robert W. Harrill - Senior Associate

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The Buzzards Bay Project NEWSLETTER

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VOLUME FIVE SUMMER 1990 NUMBER TWO

What is the CCMP?

by Barbara Sego, Newsletter Staff

The Comprehensive Conservation and Management Plan, or CCMP, is the culmination of five years of work of the Buzzards Bay Project. The Buzzards Bay Project was established with a goal of developing management recommendations that will serve as a foundation for the protection and preservation of the Bay. The CCMP will be the main tool for reaching this goal. The recommendations and information in the CCMP are based on five years of scientific and technical research and the knowledge and opinions of local officials and concerned citizens. At this stage the CCMP is a draft document. Over the summer, public meetings will be held to obtain public with a final version of the CCMP to be finished by the end of this year.

Below is a brief description of the contents of the CCMP. For more information on the CCMP, or to make comments about it, be sure to attend one of the public meetings to be held over the summer.

Introduction

The CCMP begins with an Executive Summary which serves as an overview of the CCMP. It also discusses the process and procedures for implementing the CCMP. The Executive Summary is followed by an Introduction to the Comprehensive Conservation and Management Plan. This chapter discusses why the CCMP is being produced and the benefits it will provide to the communities of Buzzards Bay if its recommendations are implemented. Finally, the introductory section concludes with a chapter on the history of the Buzzards Bay Project. Topics in this chapter include: why Buzzards Bay was chosen to have a management plan developed; what the Buzzards Bay Project is, its management structure and relationship to both the federal and state governments, both structurally and financially; and, how the Project has addressed the priority problems identified for Buzzards Bay.

continued on page 4

Coalition Announces Report Card Results

by Barbara Sego, Newsletter Staff
with information provided by The Coalition for Buzzards Bay

On Friday, March 30, 1990 the Coalition for Buzzards Bay announced the results of its Second Annual Environmental Report Card at Buttonwood Library in New Bedford. The grades ranged from an A for Bourne to three towns with a C-, Acushnet, Gosnold and Westport. Seth Garfield, chair of the Coalition's Education Committee, said "We've tried to do what a really good teacher does - that is, be fair, give credit where credit is due, be exacting where improvement is needed, be encouraging, and inspire the 'student' to do better next time. We could come down like Attila the Hun, but we'd rather hold out a carrot than club a community so hard they will just give up." The Coalition began the Report Card process in 1989 to assist the cities and towns of Buzzards Bay in seeing where they are succeeding in protecting Buzzards Bay; to provide guidance on where they can improve; and to share success stories for officials and citizens to adapt for use in their communities.

continued on page 6

IN THIS ISSUE:

Stormwater Management........................ 2
Management Committee Update............ 4
BBAC Update... 7
Calendar.. 8
Around the Bay...................................... 10
TAC Update... 13
Glossary... 13
Directory of Environmental
Organizations.. 14

Stormwater Management Workshop

by Kimara Pollock and Barbara Sego, Newsletter Staff

One of the priority pollution problems in Buzzards Bay is the management of stormwater runoff. Stormwater runoff has been found to be one of the primary sources of contamination entering Buzzards Bay. On April 18, 1990 many local officials and concerned citizens from Massachusetts and Rhode Island attended a day long workshop on stormwater management. This workshop, offered by the Bristol Conservation District, was geared toward those city and town officials and concerned citizens of southeastern Massachusetts and Rhode Island who are responsible for the management of stormwater runoff.

Useful information was available to workshop attendees on various techniques of stormwater runoff management. Mr. Robert Murphy, chairman of the Bristol Conservation District began the workshop by welcoming everyone and introducing the first speaker, Senator Thomas Norton of Fall River. Senator Norton expressed his concern for the environmental problem of stormwater runoff. He also encouraged participants to develop innovative management actions to control and treat stormwater. Senator Norton also suggested that increasing the level of environmental education in Rhode Island and Massachusetts would aid all local officials with the goals of protecting the environment.

Artificial Wetlands

The use of artificial wetlands for stormwater treatment was the opening topic of the workshop. Ms. Lynn Carlson, Environmental Scientist for Rhode Island Department of Environmental Management, spoke on her work in the development of these systems. According to Carlson, we have been losing wetlands at a rate of nearly 500,000 acres per year and have lost about 100 million acres since colonization over 200 years ago. Wetlands have not only been lost to development but to pollution as well.

The largest non-point polluter of surface water bodies and wetlands is stormwater runoff. One method currently being tried to reduce stormwater pollution is to create artificial wetlands. The stormwater is funneled into the wetlands where natural processes can reduce the contaminants in the stormwater. Artificial wetlands reduce pollutants with plants that can remove wastes, or pollutants, from the stormwater. Some pollutants in stormwater which can be controlled by these artificial wetlands are: 1) nutrients, such as phosphorous and nitrogen, which come from failing septic systems and agricultural runoff from livestock, and result in eutrophication; 2) heavy metals, which are toxic to humans and animals, and enter stormwater runoff from vehicle emissions and by tire erosion and wear; 3) sediments that prevent photosynthesis by increasing turbidity and hindering light from reaching the depths of the wetlands; and, 4) coliform bacteria that can result in the closure of swimming beaches and shellfish beds.

Carlson then went on to describe the physical, chemical and biological processes in the artificial wetlands that fight pollution. Various species of plants that should be installed in the treatment system were identified. Among those mentioned were cattails, soft-stem bulbrush, reed grass and canary grass.

Various designs of artificial wetlands were discussed along with tips on mosquito control, where the inflow and outflow openings ought to be in accordance with each other, channelization and maintenance. A document titled, "Artificial Wetlands for Stormwater Treatment: Processes and Designs", written by Lynn Carlson, was available at the door as a useful tool for anyone interested in artificial wetlands. To obtain a copy of the report, contact Carlson at the Rhode Island Department of Environmental Management, Office of Environmental Coordination, 83 Park Street, Providence, RI 02903; (401)277-3434.

Buffer Strips

Dr. Peter Groffman, Assistant Professor, University of Rhode Island Department of Natural Resources, discussed the use of buffer zones as a mechanism for stormwater management. Buffer zones, such as grassy areas, forests and wetlands are an inexpensive way of fighting stormwater pollution.

Infiltration is an example of a buffer zone mechanism. The stormwater, which moves across the surface carrying a heavy load of sediments and pollution is filtered into the ground through this mechanism. Although, the stormwater can cause erosion as it moves over the surface of the land. Other mechanisms through which a buffer zone can reduce the contaminant load of stormwater is through plant uptake, soil absorption and denitrification, a process which converts nitrate to nitrogen gas and removes it from the system all together. All of these techniques are effective ways of managing the effects of stormwater pollution.

Some problems that occur in using buffer zones to treat stormwater are: 1) channelization, which erodes the buffer zones; 2) a shallow, low velocity flow, or sheet flow, which needs to be engineered in order for the sediments to settle and the water to infiltrate; 3) polluted surface water may infiltrate into groundwater; 4) vegetation that absorbs the pollutants in the stormwater becomes contaminated; and, 5) the seasonality of vegetative growth and, regular vegetation management are also drawbacks of using buffer zones.

Groffman concluded with some important factors which must be considered when using buffer zones for stormwater management: 1) Channelization must be prevented with engineering methods or the buffer zones will just erode and become ineffective. 2) Management and maintenance practices of the plant community, such as harvesting and selection, are needed in order to maintain effectiveness. 3) Different soil types may limit the effectiveness of the buffer zone and should be considered. 4) Effectiveness of the buffer zones will be limited by climate and biology. 5) Always look for new technology.

Structural Practices

Mr. Carl Gustafson, an Engineer with the Soil Conservation Service, used cartoons and jokes to lighten the mood of his explanations of the TR-20 and TR-55 computer programs. These programs are used to estimate stormwater peak flow "at various locations in a watershed assuming various combinations of land use and structural measures." The TR-55 program is a simplified procedure for estimating stormwater runoff and peak discharges in small watersheds. The TR-20 program is designed to be used to determine the flow of stormwater through a

Barbara Sego

When stormwater flows off of roads and into natural wetlands, the wetlands act as a natural filter to keep contaminants out of coastal waters. Unfortuantely, it can only act as a filter for a short while before suffering adverse effects.

watershed. The TR-20 program is more involved than the TR-55 program, it requires more time and more exacting information, but it provides more accurate results. The TR-55 program, although it does not provide exact information on stormwater runoff, does provide rough estimates in a timely matter.

Buttermilk Bay Stormwater Projects

Mr. Robert Morehouse, Project Manager, Water Management Division, Environmental Protection Agency Buttermilk Bay Stormwater Project, began his talk by mentioning how much of a pollution problem stormwater is. He mentioned that the National Urban Runoff Study conducted by the EPA found that stormwater is equivalent to secondary sewage treatment discharge and that stormwater generally exceeds the water quality standards for coliform, metals and nutrients.

Fecal coliform in stormwater results mainly from the wastes of small animals such as dogs, cats, ducks and chipmunks. Along with septic systems, wildlife/waterfowl wastes and marine crafts, stormwater is a major source of coliform inputs in our bays and rivers. High coliform counts can cause major problems with the water quality in a water body resulting in the closure of shellfish beds and swimming areas.

Since stormwater is an important factor in declining water quality in Buzzards Bay, the Buzzards Bay Project decided that something must be done about it. The Buzzards Bay Project received a grant from the EPA to conduct a demonstration project in Buttermilk Bay to try and control stormwater runoff. As part of the Buttermilk Bay Stormwater Project, an underground stormwater management facility was installed at Electric Avenue Beach in Bourne. Some of the problems identified that could interfere with the proper functioning of the facility include: debris clogging the facility; channelization; and, sedimentation occurring in the facility causing it to malfunction. According to Morehouse, when building a facility like this, the developer must plan to control the rate and volume of runoff entering the facility; the quality of the water; and, the infiltration of water into the ground. The results of the stormwater management facility at Electric Avenue Beach have been good with almost complete removal of the contaminants in the stormwater runoff. Although Massachusetts is lagging behind other states in stormwater management, the EPA is now funding a pilot program of stormwater remediation facilities.

The Buzzards Bay Project and Its Role in Stormwater Management

Dr. Joseph Costa, Project Manager, Buzzards Bay Project spoke on the past, present and future of the Buzzards Bay Project. He described the Buzzards Bay Project, its history and its goals, which include characterizing the pollution problems with the Bay, assessing the damage to the bay, and developing a management plan to ensure that the Bay can and will be kept clean and healthy in the years to come. The Project has developed the management plan with the help of the bay area communities who have the ultimate responsibility of protecting the bay.

The Comprehensive Conservation and Management Plan (CCMP) for Buzzards Bay is in its final stages and should be sent to the people and communities of Buzzards Bay for review by the end of May.

The CCMP contains eleven action plans for Buzzards Bay, among them is one for stormwater runoff. Its two main goals are to: 1) prevent new, or increased, untreated flows of stormwater into Buzzards Bay that will adversely affect shellfish harvesting areas, swimming beaches and wetlands; and, 2) correct existing stormwater runoff problems that are causing or contributing to water quality degradation or shellfish bed closures in Buzzards Bay.

In the CCMP the Buzzards Bay Project recommends the following actions for stormwater management:

continued on page 15

Management Committee Update

by Barbara Sego, Newsletter Staff

The Management Committee met three times recently to discuss current issues and to review the development and the process for implementation of the Comprehensive Conservation and Management Plan (CCMP).

February 8, 1990

The State's match for FY89 was discussed. The Commonwealth will provide $200,000 to the Buzzards Bay Project to match funding from the Environmental Protection Agency (EPA) for FY89. The state funding will include $110,000 for stormwater remediation work. From these funds, $15,600 was awarded to the New Bedford and Barnstable County Health Departments to fund analysis of water samples collected by the Division of Marine Fisheries and the Buzzards Bay communities as part of the sanitary surveys of the shellfish beds. Another $20,600 was awarded to the Barnstable County Health Department for in the field monitoring of the stormwater remediation demonstration project in Buttermilk Bay. This study will allow the Project to determine the effectiveness of the demonstration project.

The state match also includes $133,800 ($73,800 left from the $110,000 set aside for stormwater projects and $60,000 through the Coastal Facilities Improvement Program) to be provided to the local communities of Buzzards Bay as grants to develop stormwater remediation projects. The Commonwealth is also providing $15,000 to the Buzzards Bay Project to match its demonstration project funding for the federal FY89. The funds will come through the Coastal Facilities Improvement Program. Finally, $15,000 was allocated through the Executive Office of Environmental Affairs (EOEA) for an assistant data manager.

A presentation of the Comprehensive Conservation and Management Plan (CCMP) was next on the agenda. Bruce Rosinoff, principal author of the CCMP, discussed the major themes addressed in the CCMP. A discussion of issues and methods for implementing the CCMP followed. Project Staff are working to keep this document from being another "report on the bookshelf", and to this end, implementation of the CCMP is a major issue within the Project. A discussion ensued of how best to inform and motivate the public and how best to receive comments from them about the CCMP. It was proposed that an agreement be worked out with the Bay area communities over implementing the CCMP. The Buzzards Bay Advisory Committee will look into this proposal further.

Joe Costa then presented the Technical Advisory Committee's recommendations for research minigrant awards. Other members of the Management Committee felt that the funds should be reallocated to provide the Buzzards Bay Advisory Committee with staff. A decision on the research minigrants was postponed in order for the BBAC to prepare a proposal concerning how they would alternatively use these funds.

continued on page 15

What is the CCMP?

continued from page 1

Physical Characteristics of the Bay and the Sources of Pollution

Chapter three covers the physical setting of the Bay, the size of the watershed and the rivers that flow into it, for example. Also mentioned is the geologic past of the Bay through to a discussion of the current living inhabitants of Buzzards Bay. Specifically it details the living creatures found it the Bay (lobsters, shellfish, finfish, marine mammals, marine turtles, and water birds) and the habitats of the Bay (salt marshes, tidal flats, barrier beaches and eelgrass beds).

After describing the characteristics of the Bay's environment, the next chapter lists the sources of pollution to the Bay. The sources are divided into three categories based upon their different impacts on the Bay. Discussed first is pathogen contamination of the bay and its effects on the health of the Bay. Pathogen contamination results from the presence of disease-causing bacteria and viruses. The bacteria and viruses enter the Bay from sewage treatment plants, wastes from marine crafts, septic systems, stormwater runoff, and wildlife and domestic animals. Next, is a section on toxic contamination which mentions the sources of this contamination. It also covers the different toxic contaminants found in Buzzards Bay including: petroleum and fossil fuel hydrocarbons; pesticides; PCBs; organic pollutants; and trace metals. Finally, the effects of excess nutrients on the Bay are discussed. The Project has discovered that nitrogen, the nutrient of primary concern in the marine environment, enters the Bay primarily through sewage treatment plants.

Action Plans

The centerpiece of the CCMP are the 11 action plans which address the varied pollution problems of Buzzards

Barbara Sego

Marinas, like this one, can cause increases in the fecal coliform levels of an embayment and need to be managed accordingly. The CCMP contains an Action Plan that makes recommendations to help keep marinas from creating unusally large amounts of fecal coliform contamination.

Bay. The action plans are designed to protect water quality and resources of the Bay. The action plans included in the CCMP are: managing nitrogen sensitive embayments; protection and enhancement of shellfish resources; stormwater runoff; managing boat waste; management of on-site systems (septic systems); oil pollution prevention; wetlands and marine habitat protection; planning for a shifting shoreline; sewage treatment facilities management; toxic pollution reduction; and dredging and dredged material disposal. Each action plan is divided into six sections: problem; background; major issues; goals; objectives; and recommended CCMP actions. The first three sections (problem, background, and major issues) provide the necessary information for an understanding of the issue. The goals section lists broad, long-term targets for the water quality of Buzzards Bay. The objective section lists more specific, short-term tasks for attaining the targets listed in the goals section. Finally, the recommended CCMP actions are detailed procedures for meeting the goals and objectives listed previously. It also indicates the who, what, how and a target of when these actions should be completed.

Pollution Problems in New Bedford

New Bedford is the most populous community in the Buzzards Bay region. It is also a highly urbanized and industrial area which contributes significantly to the pollution of the Bay. Because of the number of people and New Bedford's significance as a pollution source a whole chapter in the CCMP has been devoted to the pollution problems in New Bedford. This chapter describes the existing conditions in New Bedford as well as ongoing federal and state action. It also reviews the current efforts of the U.S. Environmental Protection Agency's Superfund Project. Lastly, it discusses the upgrading of the sewage treatment plant and how the pollution coming from the combined sewer overflows will be handled. Like the action plans, this chapter also lists goals and recommended actions for reducing the pollution coming from New Bedford.

Land Use Management

Since contaminants from the land can reach the water with relative ease, it has become necessary for programs like the Buzzards Bay Project to address the issue of land use. Within the Buzzards Bay drainage area, the population increased 49% between 1950 and 1986 and it continues to grow rapidly. This increase in population has resulted in an increase in the level of development; for example, people want and need a place to live, so more people means more houses. These recently developed areas are contributing to the pollution load to the Bay in the form of increased runoff from roads and lawns and increased volume of sewage from homes and businesses. In order to curb this increase in pollution that comes with increasing growth, good land use management techniques need to be adopted by all Buzzards Bay area communities. A whole chapter in the CCMP is devoted to the issue of land use management. In it are ideas on how to develop and implement a local land use plan. Included in this section are several examples of bylaws and regulations that could be adopted by the various towns and boards of the Buzzards Bay region. This chapter also includes a discussion on non-regulatory techniques as well as a discussion on the role of regional agencies and the state in proper land use management. Like the action plans, this chapter also lists goals and recommended actions for the local towns, regional agencies and the state to take to ensure proper land use management in the Buzzards Bay watershed.

Embayment Management

Throughout a large part of Buzzards Bay the sources of pollution are small or diffuse. Because of this, the local boards have to address these small, although cumulatively important, sources of pollution such as failing septic systems, storm drains, boats and marinas. In order to better understand the pollution problems at the local level (source, transport, etc.) and to formulate a management framework for a single community, the Buzzards Bay Project has sponsored numerous studies of Buttermilk Bay. Buttermilk Bay contains high levels of fecal coliform and shellfish beds are closed while swimming beaches are threatened. In order to correct these problems the Project has developed a unique approach to embayment management. This approach can serve as a case study for other towns in the region. The chapter on embayment management covers how the project was developed and how it addressed the various pollution problems of Buttermilk Bay. Sources for the pollution and methods for cleaning up the pollution were identified as well as ways to implement those solutions.

Implementing the CCMP

Finally, the CCMP addresses how it will be implemented and financed on the local, regional, state and federal level. It stresses the need for public involvement, both to see that the plan is implemented and to ensure that it is implemented in a fashion that they approve of. It mentions various ways to finance the implementation of the CCMP. Also, discussed is how the implementation of the CCMP will be monitored both for its effectiveness as a management plan and its effectiveness for keeping Buzzards Bay healthy and clean.

Judith Gregg

The goal of the Buzzards Bay Project is to keep the bay healthy and clean so that it can continued to be enjoyed by future generations.

Coalition Announces Report Card Results

continued from page 1

The Report Card, based on an extensive questionnaire, was created by the Coalition's Education Committee and staff. There were four sections on which the municipalities were graded: Groundwater Protection; Surface and Coastal Water Protection; Growth Management/Planning; and General Progress. Grades were given in each category and then were averaged for an overall grade. This year a special emphasis was placed on enforcement of bylaws and regulations. The Coalition feels the strongest environmental bylaw is hardly worth more than the paper it is written on if not enforced by the town's officials.

Barbara Sego

Seth Garfield, chair of the Coalition's Education Committee, presents Karen Walega, Health Agent for Rochester, Acushnet and Marion, with the Report Card for Acushnet at the press conference announcing the results of the 2nd Annual Environmental Report Card.

The Report Card covered such topics as: stormwater runoff; septic system maintenance; boat pump-out facilities; growth master plans; household hazardous waste; composting; recycling; Board of Health regulations; dog and waterfowl laws; open space acquisitions; wetlands protection; shellfish bed closures; water testing; landfill capping; illegal zoning variances; underground storage tanks; oil spill response plans; reduced salt on roads; proper staffing to support regulatory bodies; and the consistency of local boards in reaching decisions affecting the environment.

The Report Card was mailed to all 12 communities' Board of Selectmen or Mayor; Conservation Commission; Board of Health; Planning Board; and Zoning Board of Appeals. The Coalition followed up the mailing by visiting all 12 communities and interviewing as many officials as possible to learn firsthand what progress has been made since last year, what trouble spots exist and what environmental remedies are being worked on in the various communities around the bay. It should be noted that there was no response from any community's Board of Appeals to the Report Card.

The overall grades of the 12 municipalities that received the Report Card are: Acushnet C-; Bourne A; Dartmouth A-; Fairhaven B; Falmouth A-; Gosnold C-; Marion C; Mattapoisett B; New Bedford B; Rochester C+; Wareham B+; Westport C-. At this year's press conference the one theme stressed by local officials was that they would be facing financial constraints within the next year. Officials said they wanted to improve their communities environmental protection, but that funds and staff needed to do so were not available.

Below are some highlights of the Report Card findings for each community. For more complete information, contact The Coalition for Buzzards Bay at: PO Box 268, Buzzards Bay, MA 02532; (508)759-5761, ext. 334.

Acushnet (C-)

- Improvement needed in inter-board communication so environmental decisions are thoughtful and consistent
- Perc test is stronger that required by state's Title V
- Needs staffing to support boards
- Needs to update zoning

Bourne (A)

- Has a Code Enforcement meeting weekly for "checks and balances", and a routing system that ensures coordinated decisions
- Putting recycling in place in the town, has found seven vendors to accept materials
- Has a pooper-scooper law and one forbidding feeding waterfowl

Dartmouth (A-)

- Uses a check-off system to coordinate decisions and are presently streamlining it with computers
- Persuaded area retailers to accept waste oil regardless of where it was purchased
- Enlarged their aquifer protection area

Fairhaven (B)

- Held workshop series to promote inter-departmental cooperation
- Requires marinas with ten or more slips to provide a boat pump-out facility
- Inspects farms annually for compliance with pesticide regulations to protect Nasketucket River Basin

Falmouth (A-)

- Holds interdepartmental meetings, with multiple review process and joint site visits
- Has outstanding nutrient-loading bylaw
- Turned down seven controversial zoning variances requests last year

Gosnold★ (C-)

- Does not have proper boards or staff to protect the environment
- Made progress in recycling, with 80% participation without a bylaw
- Big problem is illegal dumping of boat septage

Marion (C)

- Boards work together when crises develop and are beginning to do so on a regular basis
- Area of building inspection needs improvement; permits are granted with little regard for environment
- Has innovative technology ready to handle boat waste, pending permit

Mattapoisett (B)

- Inter-board communication needs improvement
- Has program for inspecting septic systems
- Deed restrictions exist on homes in the Mattapoisett River Valley requiring annual pumping of septic systems

New Bedford (B)

- Interrelated staff meets weekly to review requests for new construction and renovations; has a coordinated permitting process
- Trying to resolve controversy over siting of the sewage treatment plant
- Working to improve the pretreatment of industrial waste

Rochester★ (C+)

- Boards and department heads work together in considering permits, bylaws, etc.
- Conservation Commission discourages the use of asphalt in order to decrease runoff and increase recharge to the water table
- Recycling is underway through a SEMASS project

Wareham (B+)

- Generally, boards work together, but there is need for a formal check-off system
- Has a pooper-scooper law and one prohibiting the feeding of waterfowl; does considerable public education
- Has more boat pump-out facilities than any other town on Bay

Westport (C-)

- Boards sometimes work together and are attempting a permit routing system
- Planning Board, Conservation Commission, Board of Health and Board of Appeals need adequate staffing
- Needs to improve building inspection and enforcement of Board of Health regulations

★Exempted from some questions because of applicability.

Buzzards Bay Advisory Committee Update

by Kimara Pollock, Newsletter Staff

The Buzzards Bay Advisory Committee (BBAC) met twice in the past three months to discuss, among other things, their proposal to the Management Committee for the research minigrant money to be used to fund a staff position for the BBAC.

The objective of this proposal is to promote implementation of the Comprehensive Conservation Management Plan (CCMP) by providing staff assistance to the Buzzards Bay Advisory Committee to organize local action and develop regional approaches to common local problems. They decided the money would best be used to hire a coordinator to work with the BBAC to promote the principal objective of local implementation of the CCMP.

February 14, 1990

A subcommittee was formed at the last meeting to pull the 17 towns included in the watershed of Buzzards Bay together and help clean up their environmental problems by drawing up an agreement for them to sign to implement the CCMP.

The basic agreement, which is supposed to be circulated simultaneously with the CCMP so people will understand its goals and objectives, involves a short term agreement which has a deadline of 60 days from the issuance of the CCMP, committing the towns, if only in writing, to work together and to help clean up and preserve the bay. A long term implementation strategy was also proposed and discussed along with options for funding, local implementation and immediate action.

The written description listing the objective, work program, administration, qualifications, duration of position and budget and salary for the BBAC coordinator was issued to all in attendance at the meeting.

March 13, 1990

In the February 27 meeting of the Management Committee of the Buzzards Bay Project, a decision was made to fund the TAC research minigrant proposals and the BBAC proposal for a funded employment position. Members agreed that BBAC and SRPEDD must reach accord on the scope of services before going ahead with the grant proposal and advertisement for the coordinator position for the BBAC since SRPEDD is to be the organization to sponsor the position.

An executive committee was authorized to review the final draft of the grant proposal and job description. A review committee was established to screen applicants for the position.

A review committee was also formed to draft requests for minigrant proposals. The four areas that requests for proposals will be solicited for are: Stormwater Remediation Project Grants; Embayment Management and Planning Grants; Boat Waste Oil Collection Receptacle Grants; and Boom and Oil Spill Containment Equipment.

CALENDAR

JUNE

2
SATURDAY

Bird Gardening Minicourse - 9:00 a.m.-3:00 p.m. Learn how to attract birds to your yard with plants. This minicourse is offered by the Lloyd Center and will be taught by Dr. Alan Hankin, Executive Director. Fees: $25 members; $30 nonmembers. To register call (508)990-0505.

2
SATURDAY

Mattapoisett River Canoe Trip - Join the Lloyd Center and explore the challenging Mattapoisett River! From 9:00 a.m.-4:00 p.m. with a raindate of Sunday, June 3. Fees: $15 members; $20 nonmembers; $4 per person for canoe rental. To register call (508)990-0505.

9
SATURDAY

River Day - Celebrate the Westport River with nature walks, canoe tours, entertainment, food and raffles. Sponsored by the Westport River Watershed Alliance and the Lloyd Center for Environmental Studies. 9:00 a.m.-4:00 p.m. Free. Call the Alliance at 636-3016 for more information.

10
SUNDAY

The Water's Edge - Explore life in the salt marsh and estuary from 1:30-3:30 p.m. Fees: $3 members; $5 nonmembers; $1 for children under 12. Call the Lloyd Center at (508)990-0505 to register.

16
SATURDAY

Westport River Canoe Trip - Join the Lloyd Center as we explore the East Branch from the Head of Westport to Hix Bridge. 9:00 a.m.-4:00 p.m. with a raindate of Sunday, June 17. Fees: $15 members; $20 nonmembers; $4 per person to rent canoe space. Call the Lloyd Center at (508)990-0505 to register.

17
SUNDAY

Sunset Beach Walk - See the beauty of a beach at dusk with Lloyd Center Executive Director Dr. Alan Hankin. 6:30-8:30 p.m. Fees: $3 members; $5 nonmembers; $1 for children under 12. Call the Lloyd Center at (508)990-0505 to register.

23
SATURDAY

Trashy Tunes - Join the Children's Museum and learn how to make percussion instruments from recycled items. 11:00 a.m.-12:30 p.m. Call the Museum at (508)993-3361 for details.

30
SATURDAY

Nature Walks - Join the Thorton W. Burgess Society and explore the Cape environment each Saturday through September 8. 9:30 a.m. Fee: $3 members; $4 nonmembers; $1 children. Call (508)888-6870 for details.

JULY

1
SUNDAY

Farm Field Day and Open House - Join New Alchemy Institute as they celebrate summer. All day. Call New Alchemy at (508)564-6301 for details.

8
SUNDAY

Ospreys of Westport - Join the Lloyd Center and Gil Fernandez and see fledgling ospreys learn to fly. From 9:00-11:00 a.m. Fees: free for members; $5 nonmembers; $1 for children under 12. Call the Lloyd Center at (508)990-0505 to register.

9-13
MONDAY-FRIDAY

Environmental Leadership Training Institute - The Institute has trained hundreds of environmental leaders in New England and throughout the nation, focusing of development of the practical leadership skills necessary for effective environmental protection. For more information, contact the Environmental Affairs Program, Lincoln Filene Center, Tufts University, (617)381-3451.

11
WEDNESDAY

Evening Speaker Series - The topic for this series concentrates on the changes occurring in the natural landscape of Cape Cod. July 11 - August 29 at 7:30 p.m. Fee: $2 members; $3 nonmembers. Call the Green Briar Nature Center at (508)888-6870 for specific programs or to register.

15

SUNDAY

Xerces Society Butterfly Count - Join the Lloyd Center and be part of the 16th Annual Butterfly Census. 9:00a.m.-12:00 p.m. Led by Mark Mello, Lloyd Center Research Coordinator. Fees: $3 members; $5 nonmembers; $1 for children under 12. Call the Center at (508)990-0505 to register.

18

WEDNESDAY

Under See World: Make Underwater Viewers - Join the Children's Museum and make viewers to see underwater. 3:30-4:30 p.m. Call the Museum at (508)993-3361 for details.

21

SATURDAY

Acushnet River Canoe Trip - Explore the little known upper reaches of this scenic and historic waterway. 9:00 a.m.-4:00 p.m. with a raindate of Sunday, July 22. Fees: $15 members; $20 nonmembers; $4 per person for canoe rental. Call the Lloyd Center at (508)990-0505 to register.

28

SATURDAY

3-D Beach Murals and Mosaics - An opportunity for kids who have completed grades 1-4 to make something from nature. 10:30 a.m.-12:00 p.m. Fees: $4 members; $6 nonmembers. Call the Cape Cod Museum of Natural History at (508)896-3867 to register.

28

SATURDAY

Sea Kayaking in Buzzards Bay - Come join the Lloyd Center as we spend a day kayaking on Buzzards Bay. Learn the basics of kayaking and explore the Bay! 9:00 a.m.-4:00 p.m. with a raindate of Sunday, July 29. Fees: $30 members; $40 nonmembers. Call the Lloyd Center at (508)990-0505 to register.

29

SUNDAY

Cuttyhunk Tour - Join the Thorton W. Burgess Society aboard the Patriot, Too for a three hour tour of Cuttyhunk. 9:00 a.m.-5:00 p.m. leaving from Falmouth Harbor. Fee: $38 members; $50 nonmembers. Call the Society at (508)888-6870 to register.

AUGUST

4

SATURDAY

Moonlight Canoe Trip on the Slocums River - Join the Lloyd Center on its annual moonlight canoe trip. An easy trip during which you can enjoy the stars and the sounds of the night. 6:00-11:00 p.m. with no raindate. Fees: $15 members; $20 nonmembers; $4 per person for canoe rental. Call the Lloyd Center at (508)990-0505 to register.

19

SUNDAY

Shorebirds of Allens Pond - View shore birds at a pristine salt pond before they head south for the winter. 9:00-11:00 a.m. Fees: $3 members; $5 nonmembers; $1 for children under 12. Call the Lloyd Center at (508)990-0505 to register.

20-23

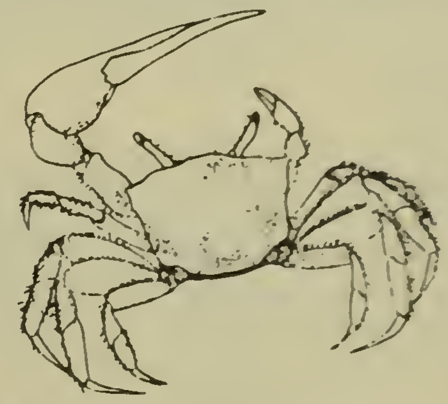
MONDAY-THURSDAY

Starfish, Seaweed, Sharks and Whales - An excellent opportunity for children age 5 and 6 to learn about marine life. 10:00 a.m.-12:00 p.m. Fees: $24 members; $34 nonmembers. Call the Cape Cod Museum of Natural History at (508)896-3867 to register.

20-23

MONDAY-THURSDAY

Seashore Critters - A chance for children who have completed first and second grades to learn about life along the shore. 9:30-noon. Fees: $30 members; $40 nonmembers. Call the Cape Cod Museum of Natural History at (508)896-3867 to register.



20-23

MONDAY-THURSDAY

Locomotion in the Ocean - Learn about marine life. For children who have completed grades 3,4 and 5. 1:00-3:30 p.m. Fees: $30 members; $40 nonmembers. Call the Cape Cod Museum of Natural History at (508)896-3867 to register.

26

SUNDAY

Local Shellfishing - Learn about shellfish and shellfishing from Gary Sherman, Westport Shellfish Warden. 1:30-3:30 p.m. Fees: $3 members; $5 nonmembers; $1 for children under 12. Call the Lloyd Center at (508)990-0505 to register.

29

WEDNESDAY

Sand Sculptures - Join the Children's Museum and learn to sculpture sand. 3:30-4:30 p.m. Call (508)993-3361 for details.

ONGOING

TUESDAY-SUNDAY

Global Problems, Local Actions Exhibit - Learn what you can do about the problems facing the earth's environment. At the Lloyd Center, 9:00 a.m.-5:00 p.m. Free. Call (508)990-0505 for more information or directions.

Around

by Kimara Pollock, Newsletter Staff

This section of the NEWSLETTER *is intended to reflect the issues and opinions which are being presented to the public through the local media and does not represent the opinions of the* NEWSLETTER *staff or the U.S. Environmental Protection Agency. Discussion is encouraged. Responses may be submitted to the "Letters to the Editor" section.*

FIREFIGHTERS PLAY A SIMULATION GAME

On April 27, firefighters were supposed to successfully clean-up a "mock" oil spill in New Bedford Harbor, and they did, only it was real. When firefighters arrived at Homers Wharf and walked up to the Edgarton, the Harbor Development Commission vessel they were to use for the drill, they discovered oil in the water.

Workers from the hazardous waste clean-up company, Clean Harbors, dropped a containment boom in the water and sponged up the oil. Paul Krug of the Coast Guard Marine Safety Office in Providence said the spill looked like bilge waste oil and that the Coast Guard team will investigate the spill and file a report with his office in Providence.

Thirty of the area firefighters learned first-hand how to use containment booms and later tried using the booms on their own, only this time the spill was peanuts. The peanuts were let loose about 40 yards off State Pier to serve as the mock oil slick, moving along the water surface with the wind.

Accompanying the mock oil spill clean up was a two-hour seminar on spill containment. Also taking part in the program were the New Bedford, Fairhaven and Dartmouth fire departments, the New Bedford Seafood Cooperative, the Harbor Development Commission and the Shellfish Warden's Office.

Michael Gentili, coordinator of the Fire Department's training exercises, said other simulated disasters include accidents and plane crashes. Firefighters are usually the first on the scene in emergency situations and in the case of an oil spill, the firefighters would be on the scene immediately, while it would take Marine Safety officers more than an hour to respond from their Providence office.

(The Standard Times, April 16; April 28, 1990)

SHELLFISH BEDS

Pollution is increasing in Buzzards Bay and wreaking havoc on shellfish beds. The problem was very apparent when an unusually high number of shellfish beds were closed this winter, an incident which usually occurs in the summer when bacteria flourishes.

The total acreage of shellfish beds closed in Buzzards Bay as of March 1, 1990 is 15,320.4. The following in a breakdown by town of acres of closed shellfish beds.

- Fairhaven, 5,044 acres
- New Bedford, 4,168.2 acres
- Dartmouth, 2,115.2 acres
- Westport, 1,305 acres
- Bourne, 949 acres
- Wareham, 810.7 acres
- Mattapoisett, 439 acres
- Marion, 211.5 acres
- Falmouth, 131 acres
- Gosnold, 88.2 acres
- Acushnet, 58.6 acres

The two main factors for the increase in closings are increased development along the shore, where septic systems drain into the water, and stormwater runoff, which brings road salt, petroleum and other surface contaminants into the bay.

Summer usually brings even more closings because bacteria breed more rapidly in warm water, according to biologist Mike Hickey of the Division of Marine Fisheries. "I would guess, that, before the summer is over, we will see a lot more [shellfish beds] closed," Mr. Hickey said, "particularly on the west shore of Buzzards Bay. It all depends what kind of summer it is."

The closure of shellfish beds is a definite sign of the bay getting more polluted and more money lost to cities and towns. According to Mimi McConnell, Executive Director of The Coalition for Buzzards Bay, New Bedford alone loses $22 million a year due to the closure of shellfishing areas.

(The Sentinel, February 7, 1990; The Standard Times, March 19, 1990)

Barbara Sego

A shellfisherman hard a work.

PCBs

According to government tests, New Bedford Harbor and the Acushnet River, which feeds into the harbor, contain some of the highest PCB levels reported in the country. The area was named a national hazardous waste site in 1982. Who is to blame for these polychlorinated biphenyls (PCBs), which can cause cancer, polluting the waters around us? The government has brought charges against five companies for polluting the harbor; Belleville Industries Inc., Aerovox Inc., Cornell-Dubilier Electronics Inc., Federal Pacific Electronic Co., and Avx Inc. If found guilty, these companies will be liable for the cost of cleaning the harbor and restoring its natural resources.

Rather than go to trial, two of the companies, Belleville Industries Inc. and its successor, Aerovox Inc., agreed to pay an estimated $12 million toward an estimated $150 million project to clean and restore the polluted harbor, leaving the three other companies liable for the balance. The judges have yet to approve the settlement and cases against Avx Inc., Cornell-Dubilier Electronics Co. Inc. and Federal Pacific Electronic Co. are still pending. The companies used PCBs in manufacturing electrical capacitors and dumped into the harbor and river until the late 1970's when the compound was banned.

People are already brainstorming ideas about how to spend the money expected to come from these companies. Fishermen gathered with the National Marine Fisheries Service to brainstorm ideas and voice opinions. The fishermen's wish list included an artificial reef to attract fish to Buzzards Bay, a "bubble barrier" to contain oil spills, transplanting lobsters to the bay, funding for the Martha's Vineyard lobster hatchery, and seeding inshore areas with quahogs and bay scallops. The fishermen also had ideas on where the money should not go; for consulting firms to figure out how to spend the money or outsiders to work on the project.

The U.S. Environmental Protection Agency has chosen to dredge and burn PCBs from the most polluted areas of the river and harbor in a $14.3 million project that will remove nearly half of 100 tons of suspected carcinogens. This project is not expected to begin actual work for several years.

(The Standard Times, February 10, 12, 13; March 12; April 10, 1990)

SUPPORT FOR ACEC FOR PONDS DROPPED

State officials were informed by Falmouth Selectmen that they could no longer support an Area of Critical Environmental Concern designation for Perch and Great Ponds in East Falmouth. Although they supported the nomination through the first three highly emotional and confrontational meetings on the designation, they have now decided the designation is not the answer.

The designation was first proposed by the Teaticket Civic Association and the Board of Selectmen, the Board of Health, the Planning Board, and the Conservation Commission when they submitted a nomination letter to the state. When the state accepted the nomination, a series of public hearings was triggered where residents voiced strong objections. The town was forced to make a decision: drop the nomination or proceed to a final state hearing. The town chose to proceed.

At the hearing, "Everyone made an effort to explain the benefits of the designation and we learned that there is a desire to work to clean up the ponds, but this is not the way. For these reasons we are withdrawing our support of the nomination," explained Selectman Virginia Valiela.

Barbara Sego

Great Pond, Falmouth

Even though emotions ran high between the supporting and opposing sides of the designation, one common issue was clear, no one was against cleaning up the ponds.

The Secretary of Environmental Affairs will make the final decision on the designation 60 days after the final hearing which was April 12. Notification will be sent to the Selectmen.

(The Enterprise, February 28; March 23; April 13, 1990)

RECYCLING

Dartmouth

Massachusetts Public Interest Research Group, on the SMU campus, asked Selectmen to endorse "The Recycling Initiative," which would require all packaging by 1996 to be either reusable up to five times or made of 50% recycled material. Logos would be required by the state Department of Environmental Protection to identify the recycled packaging.

Selectmen have postponed their decision to support the petition to make recycling the law.

One recycling issue which was made easier is oil. At the urging of the Dartmouth Conservation Commission's Recycling Committee, some town stores have put a new twist on the state law requiring retailers to accept used oil. Under the law, businesses that sell the oil must also accept the used oil if it is returned with a receipt from the store. Some stores will only accept used oil with a receipt but many will accept it without one.

Hazardous Waste Coordinator Michael O'Reilly said that illegal oil dumping poses a threat to Dartmouth's water supply since it comes from aquifers only 60 feet

continued on page 12

Around The Bay

continued from page 11

from the surface which make them extremely vulnerable to contamination. Dartmouth residents can also deposit their used oil in a tanker provided at the town landfill where a private contractor takes the used oil away for processing.

(The Standard Times, April 10, 22, 1990)

Acushnet

Mainline Tire Co. owner, Richard Frates, says he will relocate the tire-recycling business. It was announced early in March that Mainline Tire Co. has plans to relocate and develop the Wing Road site for other uses as early as four months from now.

Selectmen gave Mr. Frates two deadlines to clean up the remaining excess tires from the piles of thousands which were once prevalent on the property. Mainline missed both of the deadlines and a cease-and-desist order was ordered.

(The Standard Times, March 9, 1990)

Wareham

South Shore Recycling owner, Ronald Shutz told Selectmen the 1990's will be "the decade of recycling." Officials are beginning to learn what else can be done with their trash. Recycling is a key alternative and there is a market for such recyclable goods as newspapers, glass, plastics, and aluminum. Recycling these materials will reduce the amount of trash going to SEMASS, reduce fees, and make money by redirecting the materials into open markets, according to Mr. Shutz.

Mr. Shutz's company would be responsible for taking Wareham's trash and selling it to the highest-paying buyer.

(The Standard Times, February 28, 1990)

Bourne

A proposed bylaw has been completed by the Bourne Composting and Recycling Committee that, if approved, will mandate recycling in Bourne. "If the article is approved by town meeting voters, it will require Bourne residents to participate in recycling programs and will coincide with recycling and composting efforts ongoing in town," Committee Chairman Pamela T. Olsen said. Leaves and yard wastes are not allowed into the landfill under the proposed bylaw. Highway Surveyor Louis F. Pellegrini said he will set up a pick-up schedule for leaves and yard waste and curb-side pick-up of recyclable materials is scheduled to begin in October 1990. He also stated, "We are proposing a mandatory recycling bylaw because it should be done to keep recyclables out of the landfill and avoid the expense of having to send rubbish to SEMASS."

(The Enterprise, March 30,1990)

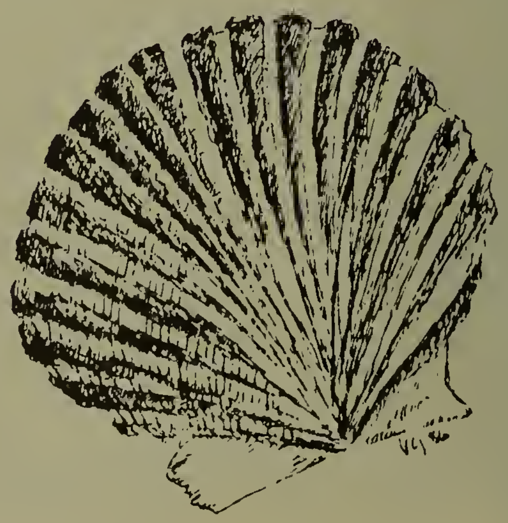
AQUACULTURE

Rodman Taylor, president of Taylor Seafood, has been on a roller coaster ride with his scallop farms. Taylor runs a 50-acre scallop farm off of West Island in Fairhaven where tens of thousands of scallops are growing. He also proposed creating a 30-acre scallop farm off Warren Point in Wareham in 1987, but waterfront residents expressed their concern about the farm interfering with boating. The selectmen eventually granted a permit, but before Taylor began working in the area, the state closed the waters to shellfishing because of pollution, according to Jack Kelsch, Acting Town Administrator. He also said that Selectmen have granted Taylor an extension on the starting date of his license.

Taylor then was awarded a five year license, with potential for a 10 year license, to grow and harvest bay scallops in a 100-acre farm southeast of Mattapoisett Neck and east of Ram Island. Although Taylor researched the waters off Mattapoisett and believed the area off the Neck to be the best for his project because of the light boat traffic, others did not agree. After residents complained the project would interfere with boating, Selectmen revoked Taylor's license and urged him to find a new location.

Taylor offered to split his 100-acre farm into two 50-acre farms and asked Selectmen to choose two of three sites. Selectmen chose one site west of Ram Island near the Fairhaven line and about three-quarters of a mile off Brandt Island. They also picked one east of the original farm, but nearer to the ledge and channel, about a mile off Mattapoisett Neck. Although Taylor says he has to complete research before putting a farm near Ram Island, he hopes to have a proposal ready by the Selectmen's meeting on May 1. Rodman Taylor also hopes to put scallop farms near Martha's Vineyard and other locations near Cape Cod.

(The Standard Times, March 14; April 9,11,18, 1990; The Sentinel, April 18, 1990)



LEGISLATION

Saving Wetlands

The nation's largest membership organization of local environmental officials, the Massachusetts Association of Conservation Commissions, revealed its proposal for a tough no-net-loss of wetlands policy at its annual meeting. The goal under the no-net-loss concept is to maintain the

continued on page 15

Technical Advisory Committee Update

by Kimara Pollock, Newsletter Staff

The main topic of conversation at the Technical Advisory Committee (TAC) meetings has been the action plans for the Comprehensive Conservation and Management Plan (CCMP) for Buzzards Bay.

February 13, 1990

At the February 13 meeting members of the TAC went over the resuts of the recent management committee meeting about the future of research minigrants for the Buzzards Bay Project. Joe Costa, state Project Coordinator of the Buzzards Bay Project, thinks it would be a mistake to squash the minigrants at this point in the project. Some of the other TAC members, along with Ted Pratt, chairman of the Buzzards Bay Advisory Committee, believe the money for the minigrants should be used in the implementation stage instead of more scientific research which probably will not be understood or used anyway.

The meeting then turned to the CCMP. The plan was in its final drafts and the TAC was to look for improvements. Members were to check facts, figures, structure, organization, content and what should be added or omitted. The "Managing Nitrogen Sensitive Embayments" action plan was discussed in reference to the towns. Some towns are basing bylaws on existing nitrogen content and ignoring what is currently in the ground, but has not reached the embayment yet.

The TAC believes the towns will be able to set their own limits on nitrogen content but should know what scientists propose as a limit and use it as a guideline and realize that deterioration is already occurring and something needs to be done.

March 1, 1990

The first announcement at this meeting was of the Management Committee's decision to fund the research minigrants proposed by the TAC.

Toxic Reduction stood as the topic of conversation in this meeting. This action plan involves state and federal agencies more than focusing on the local level where the rest of the action plans focuses.

Much advice about this action plan's objectives and recommended actions was given, taken and used for its revision. Emphasis centered on reducing toxics at the source rather than trying to clean up after the fact. Some of the major toxic polluters are industry, household toxins dumped into septic systems, landfills and agriculture. One of the largest toxic threats to Buzzards Bay is New Bedford Harbor. For this reason, many of the members of the Technical Advisory Committee believe the Buzzards Bay Project should address the problems of New Bedford Harbor and help those trying to clean it up. The next meeting will focus on the situation in New Bedford.

March 27, 1990

Items discussed at this meeting centered around the organization, presentation and content of New Bedford Action Plan. This plan includes eliminating combined sewage outflow discharge in Buzzards Bay, remediating New Bedford Harbor in terms of PCBs contamination not addressed by the Superfund cleanup, protecting public health and the health of Buzzards Bay and helping sewage treatment facilities meet water quality standards and protect natural resources.

Recommendations on content and layout of the plans were made along with modest clarifications on the monitoring plan and sewage treatment plan and emphasis on particular points of interest and importance were endorsed.

April 20, 1990

This TAC meeting was called to hear a presentation from the Science Applications International Corporation (SAIC) on the characterization of pollution sources in Buzzards Bay. SAIC is preparing a report characterizing contaminants and their sources into the bay. SAIC is basing their report on technical reports and synthesis reports prepared for the Project along with other sources of data and information. This report will be used to aid in the development of a monitoring plan for Buzzards Bay. SAIC asked for this meeting in order to receive information from the members of the TAC on their findings. Members of the TAC responded to this request with several suggestions of where the SAIC researchers could go for more information.

Glossary

A Regular Feature of the Buzzards Bay Project Newsletter

Aquifer - An underground body of water.

mgd - Millions of gallons per day, a measurement of water flow.

Recycling - The process of reusing materials to produce new materials that may or may not be similar to the original.

Wastewater - Water that carries dissolved or suspended particles from the source to a treatment facility or other disposal method.

Water Cycle - The process of how water is distributed over the planet. The ocean serves as a reservoir of water. The heat from the sun causes some water to evaporate. This water vapor will eventually form into clouds. The clouds, moved by the wind, may pass over land areas where they cool. From these cooling clouds precipitation falls in the form of either rain or snow. Some of this precipitation soaks into the ground and winds up becoming part of the groundwater. The rest of the precipitation runs off the surface of the land and flows into streams, lakes and rivers where it is transported to the ocean. Groundwater is brought to the surface through the actions of pumps, springs and plants. Eventually, the water ends up flowing back into the ocean where the whole process starts all over again.

Directory of Environmental Organizations in Buzzards Bay

by Barbara Sego, Newsletter Staff

A primary goal of the public education program of the Buzzards Bay Project is to provide information and resources to communities in the region. One way we have meet this objective has been to develop a list of environmental organizations concerned about Buzzards Bay. This list was printed in a series of earlier Newsletters. Below are three organizations we missed the first time around. As new organizations form, we would like to list them, so that all the residents of Buzzards Bay communities will be aware of the concern felt for the bay; contact the Lloyd Center for Environmental Studies at (508)990-0505.

Aubrey Consulting Inc.
350-A Gifford Street, Suite 2-3
Falmouth, MA 02540
(508)457-0810
Contact - David Aubrey, President

Marine Biological Laboratory
Woods Hole, MA 02543
(508)548-3224
Contact - Judith Anderson, Public Information Office

Northeast Estuary Office
US Fish and Wildlife Service
PO Box 307
Charlestown, RI 02813
(401)364-9124
Contact - Joseph J. Dowhan, Project Supervisor

Stormwater Management Workshop

continued from page 3

- Each Buzzards Bay community should adopt subdivision bylaws that require that best management practices to control stormwater runoff be incorporated into new development plans. Target date: 1992.
- Each Buzzards Bay community should implement best management practices for storm drains which are currently contributing to shellfish bed closures. Target date: beginning immediately and as funds allow.
- The state Executive Office of Environmental Affairs should provide funding for local stormwater remediation projects. Target date: on request from Buzzards Bay communities.
- The State Department of Public Works should eliminate the exemption for bridge work and road widening from review by local conservation commissions. Target date: 1991.
- The U.S. Soil Conservation Service (SCS) should institute a program for implementing best management practices on agricultural lands in the Buzzards Bay area. Target date: 1991.

Future State and Federal Funding

Mr. Eben Chesbrough, Environmental Engineer, Massachusetts Department of Environmental Protection, discussed the State management plan for stormwater and future state and federal funding to implement the plan. At this time the state does not have any money to put into new stormwater management projects. There is some money from the federal government, but it will end in 1991.

Mr. Chesbrough also spoke of what is called a state revolving loan fund, in which federal funding is issued for such things as construction of sewage treatment plants, state nonpoint pollution programs, and National Estuary Program conservation recommendations.

Erosion and Sediment Control in Rhode Island

Mr. Eric Offenburg, Site Plan Reviewer, Rhode Island R.C. and D. spoke on the current efforts of Rhode Island to handle stormwater runoff. Offenburg informed the participants of erosion and sediment control in Rhode Island.

Erosion is a major problem with stormwater runoff and there is definite need for proper control and management methods. Offenburg spoke on what erosion can do to the land. He also discussed management practices that the state of Rhode Island had tried, both the successful ones and those that failed, and other effective methods to control erosion that had been tried elsewhere. Offenburg explained what the problems are and how to work at the town level to promote control. He mentioned that his office has an erosion and sediment control manual available that describes in detail how to handle erosion and sediments due to stormwater runoff.

The workshop was also sponsored by the Bristol County Cooperative Extension; the Pilgrim R. C. and D.; Save the Bay; the Lloyd Center; the U.S.D.A. Soil Conservation Service and the Coalition for Buzzards Bay.

Management Committee Update

continued from page4

February 27, 1990

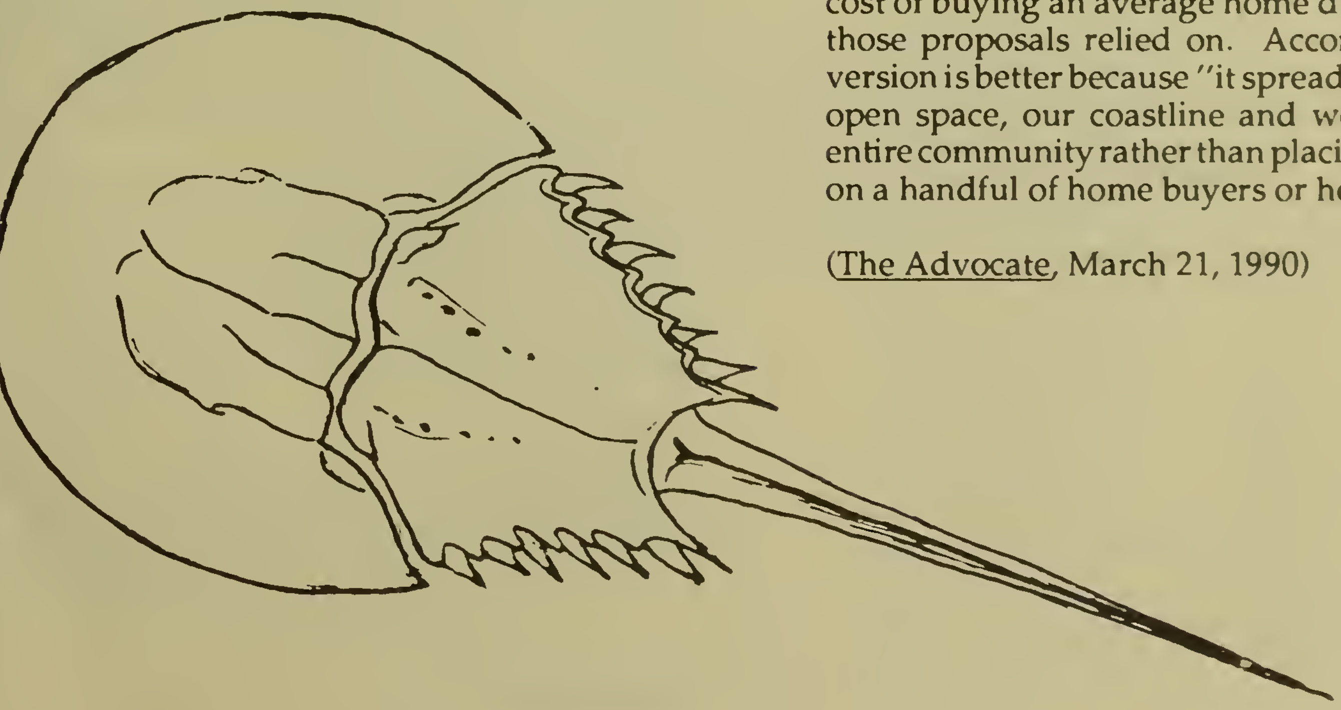
Although this meeting was called to discuss whether or not to fund the research minigrants, a different topic was first on the agenda. The Environmental Protection Agency allocation for FY90 was $50,000 less than anticipated. The Project had to reduce its FY90 budget by this amount. This new budget had to be approved by the Management Committee. The reductions were made in the funding for technical assistance.

Discussion then turned to the matter of whether to fund the research minigrants or to fund a staff person as proposed by the BBAC. It was discovered that there was money in the FY89 budget that had not been spent and that could be used to fund a staff person for the BBAC. It was decided to fund the BBAC proposal for staff and to also fund the research minigrants. Some committee members still felt that the Project should no longer be funding research and should use that money towards the implementation process for the CCMP.

April 5, 1990

This meeting was held to decide on whether to accept the current CCMP draft as the draft to submit for the formal review procedures. Committee members felt that the document was suitable for submission to the review process although there were modifications that may still need to be made.

Again, discussion included how to make sure the CCMP is implemented by the towns around the Bay. Many members of the committee felt that the lack of funding for any of the recommendations of the CCMP will make it difficult to implement on the local level. Mention was also made of the Financial Report and the Characterization of Pollution Sources for Buzzards Bay, a draft of which will be completed soon. Committee members felt there was an urgent need to hear from local officials to know what they felt they needed to have in order to use the CCMP.



Around The Bay

continued from page 12

nation's wetlands at the current level so that no overall loss would occur in either acreage or ecological function. In instances where reductions cannot be avoided, losses would be offset by the restoration of damaged wetlands or the creation of new wetlands equivalent not only in area but also in functions.

Wetlands are probably one of the most important habitats to the survival and welfare of much of the state's wildlife. Wetlands are not only important to the great numbers and diversity of wildlife, including endangered plants and animals, but wetlands are exceptional natural pollution filters and, by storing excess water during storms, also protect life and property from floods.

(The Boston Globe, March 4, 1990)

Fisheries Conservation

The House of Representatives has approved "the strongest fisheries conservation bill since the enactment of the 200-mile fishing limit in 1976," according to its sponsor, Rep. Gerry E. Studds. The bill was passed by a vote of 396 to 21.

Studds states that the legislation "will encourage conservation by 1) putting an end to large-scale drift-net fishing in U.S. waters and attempting to stop it worldwide; 2) calling for international efforts to prevent over-fishing of swordfish; 3) extending U.S. fishing jurisdiction to include tuna; and 4) toughening the penalties assessed against those who violate U.S. fisheries."

(The Advocate, March 7, 1990)

Open Space

Legislation has been filed by Representative John C. Bradford (R-Rochester) that would allow communities to establish a Community Landbank Fund to finance the purchase and preservation of open space. The account would also provide funding for affordable housing. Rep. Bradford has opposed landbank legislation in the past because of the tens of thousands of dollars added to the cost of buying an average home due to the real estate tax those proposals relied on. According to Bradford, his version is better because "it spreads the cost of preserving open space, our coastline and wetlands out across the entire community rather than placing an excessive burden on a handful of home buyers or home sellers."

(The Advocate, March 21, 1990)

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Ideas for articles or photographs for The Buzzards Bay Project Newsletter should be submitted to Barbara Sego, Lloyd Center. The deadline for the next issue is July 27, 1990.

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The Buzzards Bay Project
NEWSLETTER

VOLUME FIVE FALL 1990 NUMBER THREE

Project Releases CCMP

Local Involvement Stressed

by Marybeth Oas, Newsletter Staff

The Buzzards Bay Project released the Comprehensive Conservation and Management Plan (CCMP) for the Bay June 29 at a ceremony officiated by Julie Belaga, Regional Administrator for the U.S. Environmental Protection Agency.

"The future management and responsible use of Buzzards Bay will require the cooperation of boards of health, harbormasters, zoning boards, environmental groups, departments of public works, city planners — in short, all of the individuals who live on or near the Bay, not just state and federal regulatory agencies.

"It is up to all of us as individuals to see to it that the Plan's recommendations are implemented and that we restore and maintain the health of the Bay," Belaga told the nearly 150 people who attended the ceremony at Massachusetts Maritime Academy.

The Management Plan for Buzzards Bay is the first plan of its kind to be produced under the National Estuary Program, the federal program which includes Buzzards Bay and 16 other estuaries nationwide. The program is designed to identify the pollution sources that adversely affect the country's critical estuaries, develop management approaches that minimize the impacts of these sources, and foster a cooperative spirit between the various governmental bodies whose actions impact estuarine water quality.

The Buzzards Bay CCMP contains 11 "action plans", designed to help resolve the Bay's three major pollution problems: closure of shellfish beds due to pathogen contamination; nutrient enrichment which leads to algal blooms, loss of critical habitat, oxygen depletion, and fish kills; and contamination of finfish, shellfish and lobsters by toxic chemicals.

Together, the action plans include 69 recommendations to local, state and federal agencies for combating these problems. But, as was stressed during the release of the Plan, responsibility for implementing a majority of the recommendations falls on local governments.

continued on page 11

Regional Authority vs. Baywide Cooperative Effort

Debate Highlights CCMP Informational Meetings

by Marybeth Oas, Newsletter Staff

The Project held a series of public meetings during July and August to explain and receive comments on the contents of the Comprehensive Conservation and Management Plan (CCMP) for Buzzards Bay.

At each of the six meetings, Dr. Joseph Costa, who manages the Project for the state, reviewed the CCMP's contents and noted, "The management plan is an advisory plan. We are not proposing a new regulatory authority for the area. We are specifying the actions that are needed at all levels of government to improve Buzzards Bay water quality and preserve its living resources."

"All together there are about 60 recommendations (in the CCMP), covering about 13 major issues that are affecting the Bay. Again, we're hitting upon all sorts of agencies and organizations, but when you look at a lot of the meatier proposals that are in here, you'll notice, that they're directed at the municipalities. The reason for

continued on page 4

IN THIS ISSUE:

Better Land Use Management.................2

BBAC Update...5

Glossary...5

Calendar...6

Around the Bay.......................................8

Management Committee Update............11

Better Land Use Management Will Help Solve Water Quality Problems in Buzzards Bay Region

by Alan Lee Hankin, Newsletter Staff

The 350 square miles of land surrounding Buzzards Bay and the uses to which that land is put have a major impact on the water quality of the region's rivers, estuaries and groundwater. Among the many effects of improperly planned and managed land are the contamination and closure of shellfish beds, altered marine ecosystems, tainted finfish, and the loss of the use of the coast for recreational and commercial purposes.

Although the Buzzards Bay estuary is relatively healthy, continued improper management of land surrounding and draining into the Bay will lead to a decline in the water quality. As water quality declines, so too does the value of the properties near or adjacent to the water, the value of the harvest of shellfish and finfish from these waters, and the value of that water for recreational purposes. Declining values of coastal resources will negatively impact the economy of the region. Therefore, it is incumbent on each community and the communities of Buzzards Bay working together to improve land use management.

The problem of land use is the problem of growth. Over the past forty years the population of the region has grown by 49 percent and is projected to continue at this rate of growth. Between 1951 and 1985, there was a 100 percent increase in residential land use. Increased growth leads to increased run-off from roads and lawns and increased volumes of sewage from residences and commercial establishments. Imprudent development will ultimately impact coastal ecosystems by providing pollutants with pathways to the bay.

According to the Comprehensive Conservation and Management Plan (CCMP) for Buzzards Bay, and based on a study of the Chesapeake Bay area, "growth management may become the watchword of the '90's. . . managing growth is essential to protecting natural resources, and regulations, financial resources and pollution control devices are of limited value."

If traditional techniques for managing pollution are of limited value, then what should be done in Buzzards Bay? The CCMP, based on the best available scientific research, on public input and on the views of local, state and federal agencies, recommends a combination of traditional and innovative steps. Many of the steps are being taken in individual communities in the Commonwealth but they are not being widely taken within the Buzzards Bay region.

Of great import to the Buzzards Bay region is the development of a local land use plans. These plans should assume that existing zoning and other bylaws allow maximum build-out within communities. Maximum build-out means the total number of new homes which can be constructed in a town based on existing zoning and other bylaws. These plans can include bylaws and regulations on zoning, subdivision control, board of health regulations, other non-regulatory techniques and conservation commission policies.

Some of the zoning bylaws and ordinances which have been found to be most effective are those that are aimed at protecting groundwater and surface water. Creating overlay districts in which various uses are prohibited or special permits or performance criteria are required is one way to protect water sources. Other useful zoning actions include developing performance standards based on the carrying capacity (i.e., critical limit beyond which water quality declines to unacceptable levels) of the receiving water. Such standards could include the maximum acceptable nutrient loading from new developments. Each development proposal would be required to indicate the total nitrogen loading that would be likely to flow from the development if it was built. By comparing the probable increase in nutrient input to the ability of the local resource to absorb the nutrients, local boards would have a sound scientific basis for approving or disapproving projects.

Zoning bylaws that require tracks of undisturbed land or vegetation buffers around surface water bodies also help to protect water quality. Cluster zoning, which requires that tracks of open, permeable space surround a development, helps to minimize the impacts of run-off from the development.

Subdivision control differs from zoning in that planning boards can review drainage and other engineering considerations related to water quality. Drainage requirements which prevent run-off, require catch basins, and impose limitations on lawn fertilizers can limit the input of contaminants to the waters of the Bay. Performance standards for nitrogen can also be considered in subdivision review.

One of the most powerful tools for proper land use management are the actions which can be taken by boards of health. These boards can pass regulations protecting public health by a simple majority vote, rather than approval through the town meeting process. These regulations can insure that threats to water quality be minimized. Boards of health can define and protect environmentally sensitive areas, require water quality reports for developments which are not significant enough for state review, and protect land on which development has the potential for contaminating water.

Non-regulatory techniques should also play an important role in land use management and planning. Although not considered part of the "traditional" means for water quality protection, these techniques can be very effective. Non-regulatory water resource protection efforts may include donations of land, sale of land, tax deferments, and conservation easements. Through these various methods, open, permeable land can be protected, sensitive areas can be acquired, and endangered wildlife and habitats can be conserved. Through tax deferments, open space can be saved from the high costs of property taxes, thereby eliminating one of the motivations for private owners to sell forest, agricultural or other open spaces for development. Similar benefits are derived from conservation easements, which still allow the land owner limited rights to use their property.

Local conservation commissions have significant land use responsibility through the mandates of the Wetlands Protection Act. They can protect sensitive coastal wetlands by requiring strict standards within buffer areas. Towns are permitted to adopt construction setbacks from wetlands. Buzzards Bay communities do not have standard wetland setbacks and thus must negotiate buffer belts on a case-by-

Lloyd Center Staff

If the Buzzards Bay communities are to control future growth within their boundaries, they need to start planning now. Without adequate planning, growth will occur irrespective of the needs and wishes of the community.

case basis. The drawback to this ad hoc approach is that negotiations begin from the wetlands' edge rather than some distance farther away.

The state and regional agencies can assist in protecting water quality in Buzzards Bay by collective decision making criteria or processes which can help each individual town defend its local decisions. This consistency becomes especially important when several towns, as in the Bay region, contribute to the same watershed or abut a particular sensitive area.

State laws and regulations make it very difficult for local communities to address issues such as "grandfathering" or to redress problems which arise from previous errors in zoning or subdivision approvals. Another state action could be the formation of a planning entity such as that on Martha's Vineyard or Cape Cod. These agencies should have regional land use authority.

State regulatory tools can be used to address land use management through water quality protection. According to the CCMP, "two such tools are the antidegradation provisions of the state water quality standards and the Massachusetts Environmental Policy Act (MEPA)." According to the water quality standards, water quality can not be degraded in such a way that would eliminate any existing uses of a water body. MEPA requires the state to review the potential environmental impacts of all activities conducted, funded or permitted by the state. Together, these two provisions could be effectively used as land use management tools.

The CCMP includes a number of specific recommendations for improved land use management that will help preserve the water quality of the Bay. At the local level, the Plan suggests that each town conduct a build-out analysis to determine its maximum potential use under current zoning and subdivision bylaws. Municipalities should also adopt a strategy for using existing rules and regulations and provide for project oversight and tracking. Aggressive use of the full authority of local boards, to carefully regulate land use activities so that the most valuable and sensitive areas receive full protection, is also recommended.

At the regional level the CCMP recommends that regional planning agencies (RPA's) provide technical assistance to communities in conducting build-out analyses and developing land use management plans. RPA's should also be aggressive in protecting critical resources, especially through their comments in the development review process established under the Massachusetts Environmental Protection Act.

At the state level, the CCMP recommends that Massachusetts take a leadership role in land use management by adopting the recommendations of the Special Commission on Growth and Change and incorporating the report of that commission into comprehensive legislation. The Massachusetts Executive Office of Environmental Affairs should develop guidelines for establishing management plans for Areas of Critical Environmental Concern and mandate that towns and regions develop and adopt such plans. Finally, the Plan recommends that the Environmental Protection Agency and the Massachusetts Department of Environmental Protection co-develop a policy on antidegradation as it relates to the input of nutrients (especially nitrogen) and other pollutants to the Bay.

The ultimate goal of the Buzzards Bay Comprehensive Conservation and Management Plan as it relates to land use is to manage and direct growth so that critical resource areas are protected from cumulative impacts. To reach this goal, the combined efforts of private citizens, local and regional organizations, the surrounding cities and towns, and of regional, state and federal agencies will be required.

Informational Meetings

continued from page 1

that," Costa explained, "is that in Massachusetts, municipal government has a lot of power."

Steve Smith, Executive Director of the Southeastern Regional Planning and Economic Development District (SRPEDD) and a member of the Buzzards Bay Management Committee, hailed the CCMP as a "very detailed, 215-page prescription of what needs to be done in the Bay to both clean it up and preserve it. But," he said, "there is one thing that is not in this Plan. There is no one body that is just going to come in and do it all.

"The EPA doesn't have the authority to come in and follow through on most of the recommendations in this Plan. The DEP, at the state level, has its share of responsibility, but the majority of the work doesn't really fall on their shoulders either. And there is no 'Cape Cod Commission' to do things either," Smith said referring to the regional authority that was set up this year to manage growth and development on the Cape.

"In order to meet the goals of this Plan, you, as town meeting members or as members of local boards (must) follow through on individual recommendations and make sure that they get implemented," Smith told those present at each of the meetings he attended.

At the July 19 meeting in Marion, Selectmen Edwin "Ted" Pratt Jr., who is also a member of the Buzzards Bay Management Committee and the chairman of its Advisory Committee, asked the audience if they believed their local officials were "up to the task" of protecting Buzzards Bay. At this meeting and others, people were divided in their confidence.

Concern over the qualifications and commitment of local officials and board members was expressed in town after town. At the Dartmouth meeting, Dale Thomas, a member of the board of directors of the Westport River Watershed Alliance and a resident of Westport, complained of local officials who often seem to "find ways to maintain the status quo in terms of environmental objectives" and who have "a monumental ignorance of the real, true methods and procedures and reasons for the environmental movement."

Barbara Sego

Participants at the meeting in Marion hear from panelists Dr. Joe Costa, Buzzards Bay Project, Steve Smith, SRPEDD and Ted Pratt, Selectman on what the recommendation in the CCMP will do for their communities.

In Falmouth, Bruce Tripp, a member of the Buzzards Bay Advisory Committee, admitted that not all local board members "have the technical expertise to deal with all the proposals that come before them", and in Fairhaven, Planning Board member Channing W. Hayward argued that board members should receive regular schooling designed specifically to help them deal more effectively with the variety of matters they face. Hayward said that occasional seminars and lecture series are not enough; an on-going educational program within the public school system is needed.

"As long as some of our towns have boards that don't implement the laws properly and as long as we have politics and conservation commissions that are staffed with developers ... I see (the need for) some type of higher agency or authority," Marion resident Brad Hathaway said.

At the Falmouth meeting, Mimi McConnell, Executive Director of the Coalition for Buzzards Bay, admitted that "there are not many teeth, if any, in the CCMP without a regional planning commission or authority. But," she said, "we cannot wait for a regional regulatory agency; we must act now. Perhaps we will move toward a regional regulatory authority in the future."

Selectmen Pratt agreed. "My hope," he said at the Marion meeting, "is that by supporting each other as peers — boards of selectmen, boards of health, planning boards, conservation commissioners, and Project staff — and by providing each other with more information, we will give individual officials the practical information they need to do a better job."

Pratt said that, if, after two or three years, the Project finds that cooperation among and within the individual Buzzards Bay communities is still lacking and the actions necessary to implement the CCMP are not being taken, then it will be "time to think about a Buzzards Bay Commission."

Local officials, Pratt warned, "have got to realize that if they don't actively participate in the process that they are legally responsible for, they will, in time, lose that process."

The meetings also provided an opportunity for some to praise the work of local officials. Mike Gange, Executive Secretary of the Board of Selectmen in Dartmouth, noted the dedication of the conservation commissioners and other officials in his town and cited the adoption of the local wetlands bylaw and supplemental Title V regulations as evidence that they were in fact willing and able to protect Buzzards Bay.

In response to South Dartmouth resident Dr. George Haydock's concern over the failure of many of the local board members to attend the informational meetings Gagne said, "Seeing what the volunteer board members and their staff are doing here in Dartmouth, I think they are, in fact, keyed into what the interests are in this Management Plan.

"I see land use practices as having made a dramatic improvement over the last five years. A good example is the most recent development off of Route 6," Mr. Gagne

continued on page 11

Buzzards Bay Advisory Committee Update

by Barbara Sego, Newsletter Staff

The Buzzards Bay Advisory Committee (BBAC) has had a busy summer interviewing applicants for the new position of Executive Secretary/Environmental Coordinator. The BBAC received over 90 applications for the position. A sub-committee worked to narrow the field, and eight individuals were interviewed by the entire committee. Three applicants were called for a second interview. After much discussion, the position was offered to Dennis Luttrell of Colorado, who will start in September.

Mr. Luttrell's primary responsibilities will be to help develop regional cooperation among the communities of Buzzards Bay and to help the BBAC think of itself as a regional organization. He will also play an important role in persuading the Buzzards Bay communities to enact the recommendations in the Comprehensive Conservation and Management Plan (CCMP). Mr. Luttrell has extensive experience in this area; he helped initiate a master growth management plan for Teller County, Colorado, where he was a County Commissioner.

In addition to the search for an Executive Secretary, the BBAC has worked on a series of projects this summer. A Request for Proposals (RFP) to fund the purchase of oil spill containment equipment was sent out to the Buzzards Bay communities. The selection committee awarded three minigrants: one to New Bedford and Fairhaven, one to Marion, and one to Westport. The grants will match money allocated by each of the towns for the purchase oil spill containment equipment. Although only these four communities will purchase equipment, all Buzzards Bay communities will be invited to a U.S. Coast Guard training session on oil spill response actions. It was also suggested that the BBAC encourage the grant recipients to enter into agreements with other Buzzards Bay communities to share the oil spill containment equipment; many towns already have similar agreements to share resources in case of serious fires.

The BBAC was reminded that the deadline for stormwater mitigation minigrants is approaching. The Buzzards Bay Project will develop engineer-approved plans for all of the applicants and will then chose which proposals to fund. The Project is also looking for additional funds which the towns may be able to go after to construct facilities if their proposal is not chosen by the Project. Members of the BBAC were encouraged to try and obtain funds from the town contingent upon receiving the minigrant.

A Request for Proposals on embayment management and mapping will be finished soon. The funds will be available for developing resource and other maps for use in harbor management plans. A informational meeting will be held on this subject several weeks after the RFP is released.

As part of the implementation of the CCMP, the Buzzards Bay Project through the BBAC, will be identifying embayments where boat pumpout facilities are needed. This work is part of a larger effort by the Project to reduce or eliminate the impacts of boat wastes on the water quality and the living resources of Buzzards Bay. To meet this goal the Project will be hiring a research assistant through the Coalition for Buzzards Bay to develop a report on the need for boat pumpout facilities in the Bay. The report will also contain information on boating activity and pumpout needs of the many embayments in Buzzards Bay and will index this information by community and embayment. This report will then be distributed to the Buzzards Bay communities along with a Request for Proposals on building pumpout facilities. The report is expected to be finished in late September.

The BBAC also began discussions on a compact document for the Buzzards Bay watershed communities. The compact, which all of the Buzzards Bay watershed communities would agree to and sign, would list the commitments each of these communities were willing to make to maintain or improve the water quality of the Bay. It was decided to form a subcommittee to draft such a document and then report back to the full BBAC.

Glossary

A Regular Feature of the Buzzards Bay Project Newsletter

Build-out - The maximum number of buildings allowed in a specific area based on the current zoning and other bylaws applicable to that area.

Build-out Analysis - A process of determing what a given area will look like if the maximum amount of development is allowed to occur in that area under the current set of zoning and other bylaws.

Cluster Zoning - A method of zoning development that requires areas of open space around the developed portion of the property which helps to minimize the impacts of the development on the surrounding environment.

Overlay Districts - Areas where additional zoning regulations have been added to protect the resource of the area from abuse.

Zoning - To partition a city or town through bylaws and regulations into sections reserved for different purposes, such as residental, business, or manufactoring.

CALENDAR

SEPTEMBER

21, 22 & 23

FRIDAY-SUNDAY
15th Annual Bird Carvers Exhibit - Join the Cape Cod Museum of Natural History in Brewster and see displays and demonstrations of carvings. In addition, there will be a carving and art auction on Saturday evening. Friday and Saturday, 10:00 a.m.-5:00 p.m.; Sunday, 10:00 a.m.-3:00 p.m. Admission: $5 for adults; $4 for children (one admission covers all three days and the auction Saturday evening). For more information call the Museum at (508) 896-3867.

22

SATURDAY
Coastweek Clean-up - Join the Lloyd Center and help to clean up our local shores. Free. 9:00 a.m.-12:00 p.m. Call the Lloyd Center at (508) 990-0505 to register.

23

SUNDAY
Fall Wildflowers - Join the Lloyd Center and view the many fall wildflowers. 1:30-3:30 p.m. Fee: $3 members; $5 nonmembers; and $1 for children 12 and younger. Call the Center at (508) 990-0505 to register.

26

WEDNESDAY
Monomoy South Island Tour - Join the Cape Cod Museum of Natural History for a tour of this spectacular island. Expect to see shorebirds, plants, animals, insects, reptiles and amphibians. Hear the history of Whitewash Village. Expect to get wet to the ankles, so wear boots or old sneakers. Fee: $58 members; $68 nonmembers. 8:00 a.m.-4:00 p.m. Call the Museum at (508) 896-3867 for more information or to register. Additional dates: October 4 and 13.

27-28

THURSDAY-FRIDAY
Monomoy Island Overnight Trip - Join the Cape Cod Museum of Natural History for an overnight stay at the historic Monomoy Lighthouse. Experience 24 hours of natural history, geology, cultural history, and of course birds. Fee: $140 members; $150 nonmembers. Call the Museum at (508) 896-3867 for more information or to register. Additional dates: October 7 & 8.

29

SATURDAY
Putting the Garden to Bed (including cover crops) - Join New Alchemy and learn how to prepare your garden for the cold months of winter to come. Fee: $15. 10:00 a.m.-1:00 p.m. For more information call New Alchemy at (508) 564-6301.

29 & 6

SATURDAYS
Fall Wild Edibles - Join the Cape Cod Museum of Natural History and discover what is safe to eat in the woods and fields. This two part class will teach you about seeds, nuts, tubers and more. Pre-registration is required by September 27. Fee: $10 members; $12 nonmembers. 10:00 a.m.-12:00 noon. Call the Museum at (508) 896-3867 to register or for more information.

30

SUNDAY
Seashell Walk - Join the Lloyd Center and search area beaches for the variety of seashells. 10:00 a.m.-12:00 p.m. Fee: $3 members; $5 nonmembers; $1 for children 12 and younger. Call the Center at (508) 990-0505 to register.

OCTOBER

1

MONDAY
Monomoy North Island Tour - Join the Cape Cod Museum of Natural History and tour this island. Be prepared to get wet to the ankles, so wear boots or old sneakers. Fee: $25 members; $35 nonmembers. 9:00 a.m.-1:00p.m. Call the Museum at (508) 896-3867 to register or for more information. Additional dates: October 3, 10 and 11.

5

FRIDAY
Visit the Children's Museum in South Dartmouth. Admission from 5:00-8:00 p.m. is free. Call the Museum at (508) 993-3361 for more information or directions.

6

SATURDAY
Herb Growing and Saving, and Herbcraft - Join New Alchemy Institute and learn all about herbs. Fee: $25. 10:00 a.m.-3:00 p.m. Call New Alchemy at (508) 564-6301 for more information.

6

SATURDAY
Beach Clean-up - Join the Thornton W. Burgess Society to help clean up the plastic and other debris on Sandwich beaches. 9:00 a.m.-12:00 p.m. Call the Society for more information (508) 888-6870.

7

SUNDAY
Birds of the Maritime Forest - Join the Lloyd Center and explore a local woodlands looking for birds. 8:00 a.m.-10:00 a.m. Fee: free to Lloyd Center members; $5 nonmembers; $1 for children 12 and younger. Call the Center at (508) 990-0505 to register.

13

SATURDAY
Saltwater Aquarium - How to Set-up Your Own - A chance for everyone to learn how to set-up and stock their own home aquarium. 9:00 a.m.-3:00 p.m. Fee: $25 Lloyd Center members; $30 nonmembers. Call the Lloyd Center at (508) 990-0505 to register.

20

SATURDAY
Salt Marsh Walk - Join the Children's Museum in South Dartmouth and Dr. James Sears of Southeastern Massachusetts University's Biology Department for this walk through a salt marsh. 11:00 a.m. Call the Museum at (508) 993-3361 for more information.

27

SATURDAY
Gardening in Indoor Spaces - Join New Alchemy and learn how to grow plants inside. Fee: $15. 10:00 a.m.-1:00 p.m. Call New Alchemy at (508) 564-6301 for more information.

NOVEMBER

2

FRIDAY
Visit the Children's Museum in South Dartmouth. Admission from 5:00-8:00 p.m. is free. Call the Museum at (508) 993-3361 for more information or directions.

4

SUNDAY
Winter Waterfowl - Join the Lloyd Center and see wintering ducks, loons and raptors. 9:00-11:00 a.m. Fee: free to Lloyd Center members; $5 nonmembers; $1 for children 12 and younger. Call the Center at (508) 990-0505 to register.

17

SATURDAY
Seal Watch - Once again the Lloyd Center is cruising over to Cuttyhunk Island to observe the harbor seals. Bundle up and join us on this day-long trip. 9:00 a.m.-4:00 p.m. Fee: $30 members; $40 nonmembers. Call the Lloyd Center at (508) 990-0505 to register. Raindate: Sunday, November 18.

18

SUNDAY
How to Become an Environmental Activist - Join the Lloyd Center and the Westport River Watershed Alliance and learn how to become an activist for the environment. 1:30-3:30 p.m. Fee: $3 Lloyd Center and Alliance members; $5 nonmembers; $1 children 12 and younger. Call the Lloyd Center at (508) 990-0505 to register.

Around

by Marybeth Oas, Newsletter Staff

This section of the NEWSLETTER *is intended to reflect the issues and opinions which are being presented to the public through the local media and does not represent the opinions of the* NEWSLETTER *staff of the U.S. Environmental Protection Agency. Discussion is encouraged. Responses may be submitted to the "Letters to the Editor" section.*

Footing (and Fighting) the Bill...

New Bedford's Harbor Development Commission (HDC) voted in June to raise and aggressively collect mooring fees from boat owners who use Clark's Cove and the city's harbor. The HDC voted to raise the cost of a seasonal mooring permit from a flat $25 to $100 for residents and $150 for non-residents. A daily mooring rate of $25 would also be established. By not aggressively enforcing the collection of mooring fees, the HDC estimates that it had been losing $10,000 to $15,000 a year.

(The Standard Times, June 8, 1990)

Businessmen in Westport complained in August that the town's new landfill fees would have them paying a disproportionate share of the cost to operate the landfill. Albert Lees, owner of Lees Supermarket and Richard Lafrance of White's Restaurant and the Hampton Inn told the town's Board of Health (BOH) that the new fees would cost them about $55,000 combined, or nearly 24 percent of the landfill's operational costs. The businessmen's figures led the health officials to question the fairness of the fee structure and whether or not the town could legally raise more money in fees than it costs to operate the publicly-owned landfill. The BOH, although anxious to get the new fees in place, agreed to have Town Counsel review the fee question and to overhaul the fee structure if it was found to be legally inappropriate.

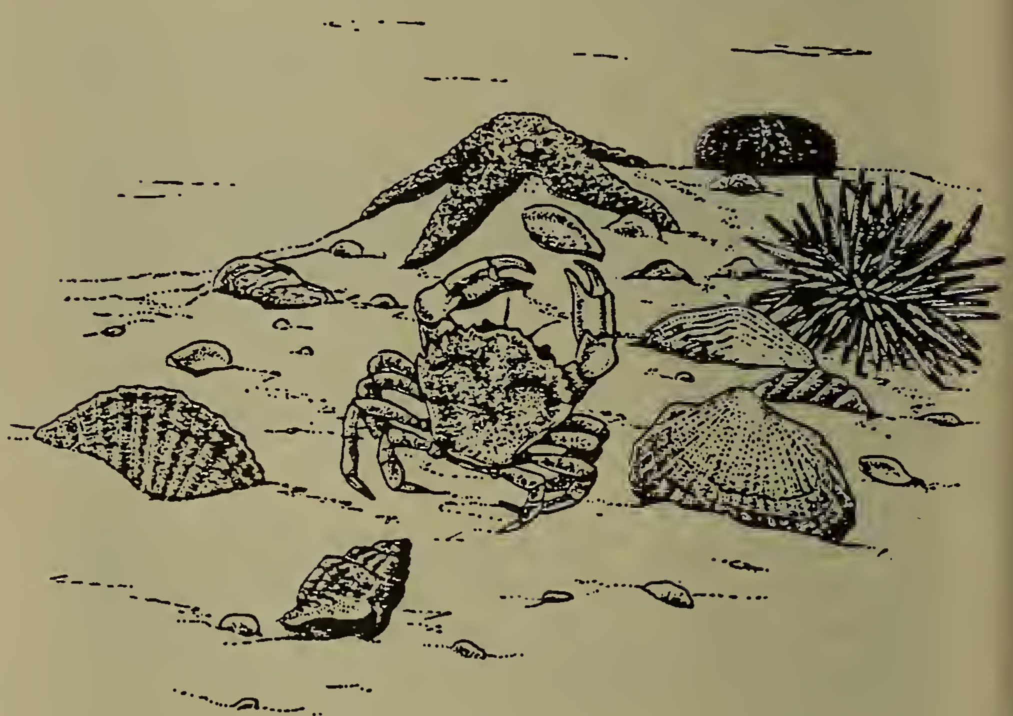
(The Chronicle, August 15, 1990)

Daniel Greenbaum, Commissioner of the state Department of Environmental Protection testified in May before the Senate Commerce Committee and endorsed Senator John Kerry's (D-Mass) bill to strengthen the national coastal zone management program. But Greenbaum said that Massachusetts' budget crises may jeopardize its ability to fully participate in an expanded coastal protection program. Greenbaum said the state's budget for costly projects like sewer treatment plants, coastal improvement projects, and the purchase of open space was cut from $300 million last year to $1.47 million this year. Funding for next year is not expected to increase. The state Office of Coastal Zone Management (CZM) is also feeling the funding squeeze; in May was reported that CZM had no plans to continue a grant program to fund the development of harbor management plans by coastal communities.

(The Standard Times, May 10, 1990)

Cities and towns across the Commonwealth were hit on August 16 with greater than expected reductions in state aid. The Standard Times reported that the Buzzards Bay communities of Acushnet, Dartmouth, Fairhaven, Freetown, Marion, Mattapoisett, New Bedford, Rochester, and Westport will collectively suffer a $6.2 million loss in local aid this year. No word yet on if and how the cuts will affect environmental protection initiatives in these communities.

(The Standard Times, August 16, 1990)



Growth Management

The state Executive Office of Environmental Affairs decided against designating two ponds in Falmouth as Areas of Critical Environmental Concern (ACECs) this June. The designation for Perch and Great ponds was originally sought by the Teaticket Civic Association and later endorsed by Falmouth's Planning Board, its Boards of Health and Selectmen, and its Conservation Commission. The ponds are believed to be threatened by pollution and over development. At a series of public hearings on the designations, many residents expressed their opposition to giving up local control over the areas. At the final hearing in April, the Board of Selectmen withdrew its support for the designation. EOEA Secretary John DeVillars reportedly declined to make the designation because of the lack of public support. DeVillars suggested that the ponds become protected as a "District of Critical Planning Concern" under the Cape Cod Commission Act once the new Commission's regulations for such designations are in place. Falmouth and Bourne are the only Buzzards Bay communities under the jurisdiction of the Cape Cod Commission, which was established earlier this year to oversee land use on the Cape.

(The Enterprise, June 16, 1990)

Dartmouth's Planning Board was impressed recently by a preliminary plan for a medical office park proposed for a site north of Allen Street and south of Hawthorn

Street. The developer, Jay Carney, came before the Board after having already met with residents in the area near the proposed development, and he had already modified his plans in response to their concerns. Carney said eight and one-half acres of the site would be turned over to the Town, the Natural Resources Trust, or the Conservation Commission. Extensive plantings, tree buffers, and overgrowth would surround the 60,000 square foot, three building scenario in an attempt to somewhat preserve the current appearance of the site. The developer also said portions of the parking lot would be used as retention areas for stormwater.

(The Chronicle, June 6, 1990)

At a special town meeting in June, Marion residents approved an aquifer protection bylaw. The bylaw will force developers who plan construction within a six-mile radius of the Town's main water source to comply with new regulation to protect the water supply. Voters also agreed to allow cluster housing developments wherein developers may build 15 percent more homes on a parcel if they preserve 40 percent of the land as open space and designate 15 percent of the homes as affordable housing. Another bylaw will allow owners of waterfront estates of 10 acres or more to subdivide their homes into apartments as long as they turn at least 20 percent of their land into open space. Marion residents also voted to prohibit floating homes, offices, restaurants and hotels on their surface waters.

(The Sentinel, June 13; The Standard Times, June 19, 1990)

Local Government & the Environment

Tempers flared in Westport this past summer over a decision by the Board of Selectmen not to reappoint two members of the town's Conservation Commission. Anne Barnes, a 12-year veteran of the Commission qualified to do wetlands delineations, and David Dionne, who was completing his first term at the time of the June vote, were replaced by William Plamondon, an electrical contractor, and John Long, an attorney who has represented clients before the commission in the past. Claude Ledoux, a former selectmen, was appointed to complete the term of Antonio Gracia, who had resigned earlier.

Environmental groups and concerned citizens criticized the selectmen's decision saying they were only trying to appease developers who, according to Standard Times columnist Rachel Thomas, had complained that "Conservation Commission members, Mrs. Barnes in particular, have spent too much time finding violations of the wetlands regulations to delay their projects." Selectmen said that there was a lack of communication among the members and that, for the sake of fairness, both conservationists and those involved in development should be represented on the commission. With Commission member Donald Bernier, a contractor and land broker, still in office, many people think the Commission is now stacked in favor of developers. Commission Chairman Calvin Hopkinson and Conservation agent John Rockwell both resigned in protest over the situation.

Since the new members began serving in July, they say they have cut through a formerly clogged agenda by meeting more frequently and conducting site visits on Saturdays. Donald Bernier has been elected chairman.

(The Chronicle, June 13, 27, July 4, 11, 18, August 1 and 15, 1990; The Standard Times, June 27, July 1, 3, and August 14, 1990)

As of mid-August, Fairhaven officials had yet to decide how to handle the delegation of Town Planner Nicholas Tangney's duties once he cuts back to part-time and finally resigns in March. Possible solutions include splitting his duties between the Building Inspector and his assistant or hiring a town administrator to handle questions and issues relating to the planning board, appeals board and conservation commission. Such an administrator would solve the Fairhaven Conservation Commission's current dilemma of being inaccessible to the public. The public has complained that there are never any commission members available at the town hall to answer questions, but the Commission has no money in its budget to fund even a part-time staff person.

(The Advocate, August 1 and 15, 1990; The Standard Times, August 7, 1990)

Solid Waste Management

The Greater New Bedford Regional Refuse Management District must refile its permit applications for the Crapo Hill landfill project in the wake of revisions to the state's solid waste management regulations. In an effort to extend the life of landfills, the new regulations place greater emphasis on recycling and incinerating trash. The new state regulations require the recycling of 46 percent of all solid waste by 2000. The District's original plans called for recycling only 20 percent of the waste coming into the Crapo Hill facility. In its new permit applications, the District must detail how it intends to implement recycling efforts in Dartmouth and New Bedford, the municipalities that comprise the district, in order to meet the new requirements. District officials have also begun exploring a number of incineration options including building its own facility or using the existing SEMASS facility in Rochester.

The new permit application are expected to be filed sometime in September. Obtaining new permits could delay the project for up to six months, and if final permits are delayed beyond March of next year, the Crapo Hill landfill would not open until July 1992. The District is under the gun to stay on schedule because New Bedford's Shawmutt Avenue landfill is going to be closed in September 1991, and Dartmouth's landfill on Russells Mills Road must close in three or four months unless it receives an extension from the state. Dartmouth has asked for a ten-year extension, but has been told by state officials that it will most likely receive only a two-year extension.

(Chronicle, June 13, July 4, 25, and August 8, 1990; Standard Times, June 20, July 12, and August 2, 1990)

Management Committee Update

by Barbara Sego, Newsletter Staff

The Management Committee met twice over the summer and primarily discussed the implementation of the Comprehensive Conservation and Management Plan (CCMP) for Buzzards Bay.

June 8, 1990

At its meeting in early June, the Management Committee decided that the CCMP would become a three volume document. Each volume would be devoted to a separate topic. Volume one contains the Management Plan itself, volume two will be the Financial Plan, and the Monitoring Plan will be published as volume three. The Management Plan, which provides the towns, state and federal agencies with recommendations on how to improve the water quality of Buzzards Bay, was released for public review over the summer. The Financial Plan, which addresses how the towns can finance the recommendations in the CCMP and how much it will cost to implement the CCMP in full, will be released for public comment in the fall. Also scheduled for release in the fall is a Monitoring Plan for Buzzards Bay.

In addition to the three-volume CCMP, there will be five companion documents to the CCMP. The first of these, an Action Plan Report is already available. It can be thought of as a distilled version of the CCMP. The Action Plan Report focuses entirely on the major recommendations in the CCMP to protect Buzzards Bay's water quality; it also identifies the appropriate agencies to enact these recommendations. Scheduled to be completed by the end of August is a report on the Characterization of Pollution Sources, which will provide detailed information on the various sources of pollution to Buzzards Bay. A similar report, entitled Living Resources of Buzzards Bay, is being prepared on the animals and plants of Buzzards Bay. In the fall, the Buzzards Bay Project will begin work on an Implementation Plan that will contain specific detailed agreements with the local, regional, state and federal agencies responsible for implementing the CCMP. This document is expected to be revised often, as the different towns and agencies adopt and implement the recommendations in the CCMP. Also available, as a Technical Report Series, are the research reports produced through the Project. Some of these reports are available now and others will be completed over the next several months.

Other Project activities were also briefly discussed at the Committee's June meeting. It was asked that a request for proposals for stormwater mitigation will be sent out soon through the Buzzards Bay Advisory Committee (BBAC) minigrant program. Ideas for uses for the next EPA Demonstration Projects funds was also discussed. A project on managing nitrogen sensitive embayments was chosen. The Project staff will now formally apply to the EPA for a grant to conduct this work.

August 6, 1990

The Management Committee's August meeting began with an update of Project activities from the staff. The public meetings on the CCMP were reviewed to date and the staff expressed their disappointment with the attendance at these meetings. Project staff also reported that they are preparing a grant request to the state for funding of nonpoint source pollution projects. Receipt of such a grant would allow the Project to fund more of the proposals it receives from the Buzzards Bay Advisory Committee for stormwater mitigation.

The discussion then turned to finalization of the CCMP. It was reported that both the three-volume CCMP and the five companion documents are still on schedule. The committee then addressed including in the CCMP letters or some other form of written agreement from the communities indicating their support for the management plan's concepts. The committee then asked the representatives of the state and federal agencies how feasible such written commitments would be from them at this time. Most members felt that a letter was a good idea and the Project staff will draft a sample.

Finally, the Management Committee was informed that the Buzzards Bay Project will be hiring a new staff member to handle the public outreach component of the Project. This person will come on board in September and will be responsible for several items including the newsletter, fact sheets, workshops, and press releases.

CCMP Release

continued from page 1

The CCMP's emphasis on local government stems from the fact that, "most pollution impacts in Buzzards Bay are localized. A shellfish bed closure in Wareham is not the result of the New Bedford sewage treatment facility, it is the result of local inputs," explained Dr. Joseph Costa, who manages the Buzzards Bay Project for the state.

Town of Marion Selectmen Edwin "Ted" Pratt Jr., who is also a member of the Buzzards Bay Project Management Committee and the Chairman of the Project's Citizens Advisory Committee, admitted that the CCMP relies heavily on local government, but he challenged officials not to abdicate their responsibilities.

"We can rely on the federal government and the state government to come down and help us put together some plans, but it is only ourselves we can rely on to work together to get the job done," Pratt said. "We have the knowledge. We have the tools. Do we have the will?"

Marybeth Oas

John Devillars, Secretary of Environmental Affairs, listens to a question from a member of the audience on the CCMP.

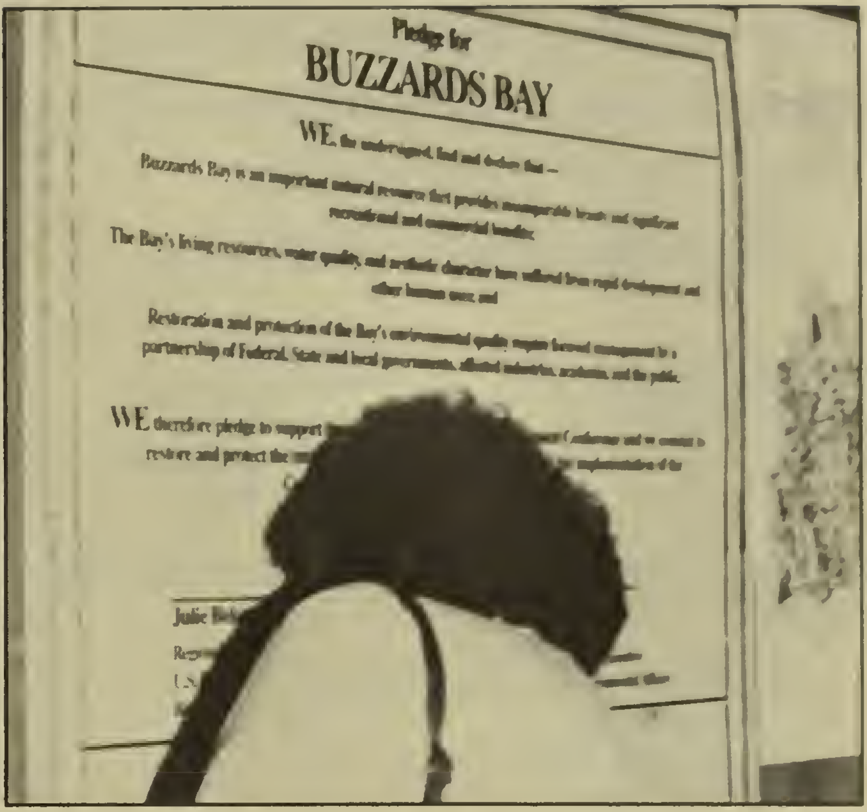
Everyone present at the ceremony was reminded that estuaries, like Buzzards Bay, are among the richest and most productive habitats on earth, and that two-thirds of the fish caught worldwide are hatched in estuaries. Buzzards Bay alone, with 46,000 acres of shellfish beds, is home to a fishing industry worth $4.5 million annually.

The Bay is also the site of two state-protected areas of critical environmental concern. It has 11 public beaches, 210 miles of shoreline, and is the route of 200,000 vessels that pass through the Cape Cod Canal each year.

"Buzzards Bay is not only one of the Commonwealth's most treasured resources, it is also, as evidenced by recent events, one of the most fragile," said John DeVillars, Massachusetts Secretary of Environmental Affairs, referring to the groundings of the Bermuda Star and the Bouchard Barge B-145 that occurred in Buzzards Bay in June.

"The Buzzards Bay Management Plan reflects our absolute commitment to protecting these vast and fragile resources," DeVillars concluded.

The ceremony ended with the government officials and the citizens in attendance signing a symbolic pledge card that expressed their commitment to preserving the Bay.



Marybeth Oas

A member of the audience signs the Pledge for Buzzards Bay.

Informational Meetings

continued from page 4

continued. "Take a look at the stormwater mitigation measures they have taken there versus what little stormwater mitigation developers were required to take in the early 1980s.

"You'll see settling ponds, vegetated buffers, and long channels that are lined with vegetation to get the pollutants from the parking lots because, as you know, that runoff ultimately gets into a small stream that runs right into the Paskamansett River. So there has been changes. You have to give these agencies credit, but you also have to give them encouragement to continue, especially under some of the adversity that's placed upon them by developers and engineers who complain of the significant financial impact that requirements like this cause."

The push for development in the Buzzards Bay communities and the need to control that was emphasized repeatedly at the informational meetings. At the Dartmouth meeting, Dr. Haydock warned, "If we don't wake up and realize that the Cape is practically closed to development and that this is the area that is ripe for picking, we're going to, all of a sudden, be badly burned and be sorry we weren't on our toes."

Costa agreed saying, "If there is one message in this document, it is that municipal officials and townspeople should take control and plan for their future and think about the environment they are impacting."

Costa assured those who attended the informational meeting that the Buzzards Bay Project "is going to be out there pushing for effective environmental protection. We're going to be advocating for change." He said the Project would be working with citizens groups, giving technical assistance to the municipalities, educating the public, releasing grants, and "working with the state and federal governments to get grant money directed toward Buzzards Bay municipalities to try to finance some of the recommendations in the CCMP."

The Buzzards Bay Project Newsletter is Produced by The Lloyd Center for Environmental Studies:

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Ideas for articles or photographs for The Buzzards Bay Project Newsletter should be submitted to the Project Office.

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